Middlesex Retirement System

Actuarial Valuation and Review as of January 1, 2006

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November 30, 2006

Retirement Board Middlesex Retirement System 20 Linnell Circle Billerica, MA 01865

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of January 1, 2006. It summarizes the actuarial data used in the valuation and establishes the funding requirements for fiscal 2007 and later years and analyzes the preceding two years' experience.

The census and financial information on which our calculations were based was prepared by the staff of the Middlesex Retirement System. That assistance is gratefully acknowledged. The actuarial calculations were completed under my supervision.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

THE SEGAL COMPANY

By:

Kathleen A. Riley, FSA, MAAA, EA
Senior Vice President and Actuary

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Purpose

This report has been prepared by The Segal Company to present a valuation of the Middlesex Retirement System as of January 1, 2006. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- > The benefit provisions of M.G.L. Chapter 32;
- > The characteristics of covered active participants, inactive participants, and retired participants and beneficiaries as of January 1, 2006;
- > The assets of the Plan as of December 31, 2005;
- > Economic assumptions regarding future salary increases and investment earnings; and
- > Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

- > The actuarial valuation report as of January 1, 2006 is based on financial information as of that date. Changes in the value of assets subsequent to that date are not reflected.
- > During the plan years ended 2004 and 2005, the market value rate of return, net of investment and administrative expenses, was 10.49% and 6.29%, respectively, compared to the assumed rate of return of 8.25%. Because the actuarial value of assets gradually recognizes market value fluctuations over a five-year period, the actuarial rate of return for the plan years ended 2004 and 2005 was 1.91% and 3.49%, respectively. The actuarial value of assets as of December 31, 2005 was \$653.2 million, or 102.7% of the market value of assets.
- > As indicated in Section 2, Subsection B of this report, the total unrecognized investment loss as of December 31, 2005 is \$17.2 million. This investment loss will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, to the extent it is not offset by recognition of investment gains derived from future experience. This implies that earning the assumed rate of investment return of 8.25% per year (net of expenses) on a market value basis will result in investment losses on the actuarial value of assets in the next few years. Therefore, if the actual market return is equal to the assumed 8.25% rate and all other actuarial assumptions are met, the contribution requirements will increase more than expected when the next valuation is completed.

SECTION 1: Valuation Summary for the Middlesex Retirement System

- > The unfunded liability has increased from \$605.7 million as of January 1, 2004 to \$711.4 million as of January 1, 2006. The increase is primarily due to the investment loss on an actuarial basis over the two-year period.
- > In November, 2005, the Town of Dracut chose to pay off the 2002 ERI in full. The appropriation amounts in this report reflect this payment.
- > This valuation reflects the following:
 - > In 2004, the Public Employee Retirement Administration Commission approved a new mortality table and interest rate to be used in the calculation of the optional form of payment factors. This valuation reflects the change to the new factors.
 - > This valuation reflects the additional liability due to the increased benefits for veterans who retire on an accidental disability.
 - > A liability for a deferred retirement allowance has been calculated for inactive vested members with a reported final average salary.
- ➤ Because the fiscal 2007 appropriation is set to the previously budgeted amount of \$57,553,642, the results of this valuation will first be reflected in the fiscal 2008 appropriation. Because the fiscal 2008 appropriation would have increased 18.3% over fiscal 2007, the Board has elected to phase-in the impact over a two-year period. The funding schedule shown in Exhibit F of Section 3 has a fiscal 2008 appropriation of \$64,053,064 (11.3% higher than fiscal 2007) and a fiscal 2009 appropriation of \$71,233,749 (11.2% higher than fiscal 2008). This assumes that all units do not utilize the option of making their appropriation on July 1. Units that make their appropriation on July 1 will pay a lower amount. The current funding schedule amortizes the unfunded liability by June 30, 2028 (shorter amortization of certain ERI liabilities).

SECTION 1: Valuation Summary for the Middlesex Retirement System

Summary of Key Valuation Results		
	2006	2004
Contributions:		
Recommended for fiscal 2007 and 2005	\$57,553,642	\$44,417,911
Recommended for fiscal 2008 and 2006	64,053,064	50,660,236
Recommended for fiscal 2009 and 2007	71,233,749	57,825,010
Funding elements for plan year beginning January 1:		
Normal cost	\$42,967,127	\$37,624,050
Market value of assets	635,977,915	540,508,145
Actuarial value of assets	653,156,866	618,163,380
Actuarial accrued liability	1,364,582,969	1,223,828,127
Unfunded actuarial accrued liability	711,426,103	605,664,747
GASB 25/27 for fiscal year beginning July 1:		
Annual required contributions	\$57,553,642	\$52,902,366
Actual contributions		52,902,366
Percentage contributed		100.00%
Funded ratio	47.86%	50.51%
Demographic data for plan year beginning January 1:		
Number of retired participants and beneficiaries	4,763	4,780
Number of inactive participants entitled to a return of their employee contributions	3,080	2,913
Number of inactive participants with a vested right to a deferred or immediate benefit	78	N/A
Number of active participants	9,106	9,043
Total payroll	\$318,738,544	\$297,459,982
Average payroll	35,003	32,894

A. PARTICIPANT DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered participants, including active participants, inactive participants, retired participants and beneficiaries. This section presents a summary of significant statistical data on these participant groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A and B.

A historical perspective of how the participant population has changed over the past four valuations can be seen in this chart.

CHART 1
Participant Population: 1999 – 2005

Year Ended December 31	Active Participants	Inactive Participants	Retired Participants and Beneficiaries
1999	8,437	1,887	4,383
2001	9,246	2,331	4,481
2003	9,043	2,913	4,780
2005	9,106	3,158	4,763

Active Participants

Plan costs are affected by the age, years of service and payroll of active participants. In this year's valuation, there were 9,106 active participants with an average age of 46.3, average years of service of 9.1 years and average payroll of \$35,003. The 9,043 active participants in the prior valuation had an average age of 45.3, average service of 8.5 years and average payroll of \$32,894.

Among the active participants, there were 9 participants with unknown age information. The actuarial calculations were adjusted for the missing information by assuming that it was the same as information provided for other active participants with similar known characteristics.

Inactive Participants

In this year's valuation, there were 78 participants with a vested right to a deferred or immediate vested benefit and 3,080 participants entitled to a return of their employee contributions.

These graphs show a distribution of active participants by age and by years of service.

CHART 2
Distribution of Active Participants by Age as of December 31, 2005

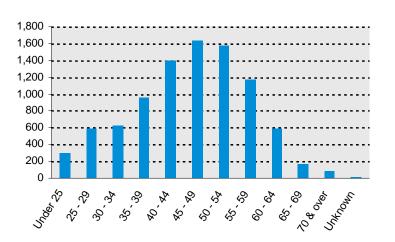
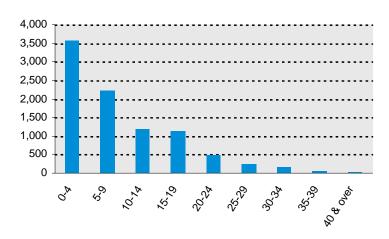


CHART 3

Distribution of Active Participants by Years of Service as of December 31, 2005



Retired Participants and Beneficiaries

As of December 31, 2005, 4,101 retired participants and 662 beneficiaries were receiving total monthly benefits of \$6,316,863 excluding COLAs reimbursed by the Commonwealth. For comparison, in the previous valuation, there were 4,105 retired participants and 675 beneficiaries receiving monthly benefits of \$5,768,290 excluding COLAs reimbursed by the Commonwealth.

These graphs show a distribution of the current retired participants and beneficiaries based on their monthly amount and age, by type of pension.

BeneficiariesAccidental DisabilityOrdinary DisabilitySuperannuation

CHART 4
Distribution of Retired Participants and Beneficiaries by Type and by Monthly Amount as of December 31, 2005

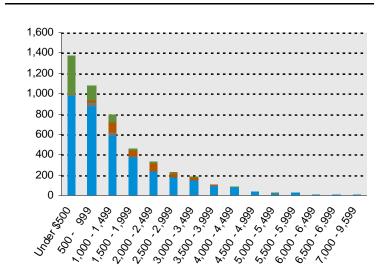
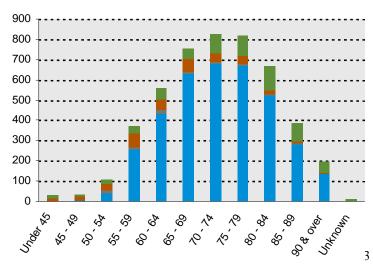


CHART 5

Distribution of Retired Participants and Beneficiaries by Type and by Age as of December 31, 2005



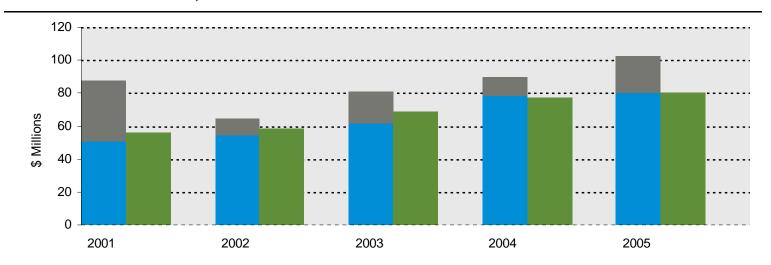
B. FINANCIAL INFORMATION

Retirement plan funding anticipates that, over the long term, both net contributions and net investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments. Retirement plan assets change as a result of the net impact of these income and expense components. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits C and D.

The chart depicts the components of changes in the actuarial value of assets over the last five years. Note: The first bar represents increases in assets during each year while the second bar details the decreases.

Benefits paidNet investment incomeNet contributions

CHART 6 Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended December 31, 2001 – 2005



It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

The chart shows the determination of the actuarial value of assets as of the valuation date.

CHART 7

Determination of Actuarial Value of Assets

			Year Ended			
			December 31, 2005		December 31, 2004	
1.	Market value of assets			\$635,977,915		\$598,448,707
		Original	Unrecognized		Unrecognized	
2.	Calculation of unrecognized return*	<u>Amount</u>	<u>Return</u>		<u>Return</u>	
	(a) Year ended December 31, 2005	-\$11,737,421	-\$9,389,937		N/A	
	(b) Year ended December 31, 2004	12,095,552	7,257,331		\$9,676,442	
	(c) Year ended December 31, 2003	1,320,869	528,348		792,521	
	(d) Year ended December 31, 2002	-77,873,466	-15,574,693		-31,149,386	
	(e) Year ended December 31, 2001	-60,410,170	<u>N/A</u>		-12,082,034	
	(f) Total unrecognized return			-17,178,951		-32,762,457
3.	Preliminary actuarial value: (1) - (2f)			653,156,866		631,211,164
4.	Adjustment to be within 20% corridor			0		0
5.	Final actuarial value of assets: $(3) + (4)$			\$653,156,866		\$631,211,164
6.	Actuarial value as a percentage of market value: $(5) \div (1)$			102.7%		105.5%

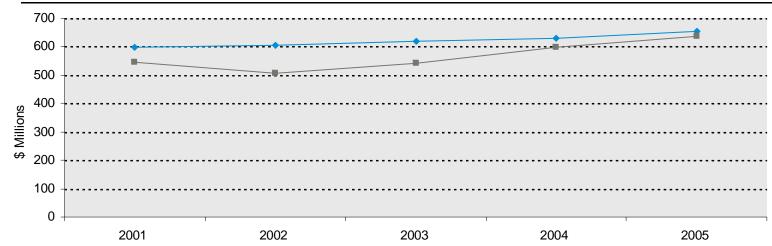
^{*}Unrecognized return is the difference between the total return and the expected return on a market value basis and is recognized over a five-year period.

Both the actuarial value and market value of assets are representations of the Middlesex Retirement System's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial asset value is significant because the Middlesex Retirement System's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

This chart shows the change in the actuarial value of assets versus the market value over the past five years.

CHART 8

Actuarial Value of Assets vs. Market Value of Assets as of December 31, 2001 – 2005



C. ACTUARIAL EXPERIENCE

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term

development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total loss over the past two years is \$83,897,988, \$72,461,926 from investments and \$11,436,062 from all other sources. A discussion of the major components of the actuarial experience is on the following pages.

This chart provides a summary of the actuarial experience over the past two years.

CHART 9

Actuarial Experience for Two-Year Period Ended December 31, 2005

1.	Net loss from investments*	-\$72,461,926
2.	Net loss from other experience**	<u>-11,436,062</u>
3.	Net experience loss: $(1) + (2)$	-\$83,897,988

^{*} Details in Chart 10

^{**} Details in Chart 13

Investment Rate of Return

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Middlesex Retirement System's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets is 8.25%. The actual rate of return on an actuarial basis for the 2005 plan year was 3.49% and 1.91% for the 2004 year.

Since the actual return for the year was less than the assumed return, the Middlesex Retirement System experienced an actuarial loss during the two-year period ending December 31, 2005 with regard to its investments of \$72,461,926 including an adjustment for interest.

This chart shows the gain/(loss) due to investment experience.

CHART 10
Actuarial Value Investment Experience

	Year Ended		
	December 31, 2005	December 31, 2004	
1. Actual return	\$22,046,916	\$11,844,337	
2. Average value of assets	631,160,557	618,765,104	
3. Actual rate of return: $(1) \div (2)$	3.49%	1.91%	
4. Assumed rate of return	8.25%	8.25%	
5. Expected return: (2) x (4)	\$52,070,746	\$51,048,121	
6. Actuarial gain/(loss): (1) – (5)	<u>-\$30,023,830</u>	<u>-\$39,203,784</u>	

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial basis compared to the market value investment return for the last five years, including five-year averages. Based upon this experience and future expectations, we have maintained the assumed rate of return of 8.25%.

The market value investment returns shown below are net of investment and administrative expenses and, therefore, are less than returns that may be reported for other purposes.

CHART 11
Investment Return – Actuarial Value vs. Market Value: 2001 - 2005

	Actuarial Value Inves	Actuarial Value Investment Return		Market Value Investment Return		
Year Ended December 31	Amount	Percent	Amount	Percent		
2001	\$36,865,149	6.52%	-\$18,318,865	-3.24%		
2002	10,658,679	1.78	-35,166,292	-6.48		
2003	19,335,262	3.21	42,689,011	8.51		
2004	11,844,337	1.91	56,737,116	10.49		
2005	<u>22,046,916</u>	3.49	<u>37,630,422</u>	6.29		
Total	\$100,750,343		\$83,571,392			
	Five-year average return	3.34%		3.04%		

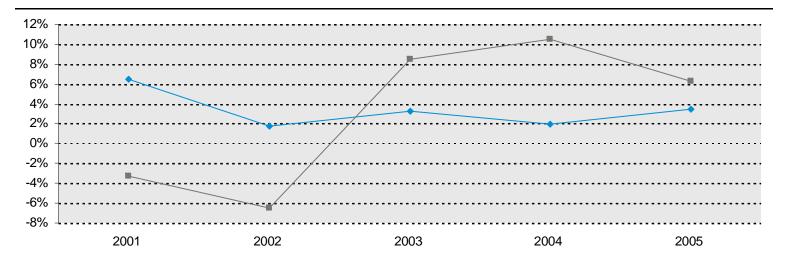
Note: Investment returns are net of investment and administrative expenses.

Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.

This chart illustrates how this leveling effect has actually worked over the years 2001 - 2005.

CHART 12

Market and Actuarial Rates of Return for Years Ended December 31, 2001 - 2005



Other Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- > the extent of turnover among the participants,
- > retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),
- > the number of disability retirements, and
- > salary increases different than assumed.

The net loss from this other experience for the two-year period ending December 31, 2005 amounted to (\$11,436,062) which is 0.8% of the actuarial accrued liability.

A brief summary of the demographic gain/(loss) experience of the Middlesex Retirement System for the two-year period ending December 31, 2005 is shown in the chart below.

With this valuation we recommend the following assumption changes:

- > In 2004, the Public Employee Retirement Administration Commission approved a new mortality table and interest rate to be used in the calculation of the optional form of payment factors. This valuation reflects the change to the new factors.
- > A liability for a deferred retirement allowance has been calculated for inactive vested members with a reported final average salary.

Changing these assumptions resulted in a net increase in the actuarial accrued liability of \$2,014,279 and an increase in the employer normal cost of \$40,113.

The chart shows elements of the experience gain/(loss) for the most recent years.

CHART 13

Experience Due to Changes in Demographics for Two-Year Period Ended December 31, 2005

Deaths among retired members and beneficiaries	\$2,304,150
2. Salary increases more than expected for continuing actives	-9,437,762
3. Miscellaneous loss	<u>-4,302,450</u>
4. Total	-\$11,436,062

D. RECOMMENDED CONTRIBUTION

The amount of annual contribution required to fund the Plan is comprised of an employer normal cost payment and a payment on the unfunded actuarial accrued liability.

The actuarial accrued liability includes \$900,805 for the additional liability due to the increased benefit for veterans who retire on an accidental disability retirement allowance.

The preliminary recommended contribution of \$64,895,610 is based on a 4-year level amortization of the 1992 ERI liability, a 13-year level amortization of the 2002 ERI, a 14-year level amortization of the 2003 ERI, and a 22-year increasing (4.50% per year) amortization of the remaining unfunded liability.

Because the fiscal 2007 appropriation has already been budgeted at \$57,553,642, the results of this valuation will

first be reflected in the fiscal 2008 appropriation. Due to the substantial increase in the appropriation, the Board has elected to phase in the increase by adopting a funding schedule with an appropriation of \$64,053,064 for fiscal 2008 and \$71,233,749 for fiscal 2009.

These figures assume that contributions will be made on July 1 and December 31. Units that make their appropriation on July 1 will pay a lower amount.

Exhibit F in Section 3 shows the recommended contributions through fiscal 2028 based on this funding schedule. The current funding schedule fully amortizes the unfunded liability by June 30, 2028.

Exhibit G shows additional detail for each unit.

The chart compares this valuation's recommended contribution with the prior valuation.

CHART 14 Recommended Contribution

		Year Beginning January 1			
	_	2006 200		4	
			% of		% of
		Amount	Payroll	Amount	Payroll
1.	Total normal cost	\$42,967,127	12.98%	\$37,624,050	12.29%
2.	Expected employee contributions	<u>-29,074,475</u>	<u>-8.78%</u>	-26,280,484	<u>-8.59%</u>
3.	Employer normal cost: $(1) + (2)$	\$13,892,652	4.20%	\$11,343,566	3.71%
4.	Actuarial accrued liability	1,364,582,969		1,223,828,127	
5.	Actuarial value of assets	653,156,866		618,163,380	
6.	Unfunded actuarial accrued liability: (4) - (5)	\$711,426,103		\$605,664,747	
7.	Employer normal cost projected to July 1, 2006 and 2004, adjusted for timing*	14,451,363	4.28%	11,742,896	3.78%
8.	Projected unfunded actuarial accrued liability	740,190,912		629,400,030	
9.	Payment on projected unfunded actuarial accrued liability, adjusted for timing*	50,444,247	14.94%	39,200,742	12.62%
10.	Preliminary recommended contribution: (7) + (9), adjusted for timing*	\$64,895,610	19.22%	\$50,943,038	16.40%
11.	Budgeted appropriation	\$57,553,642	<u>17.05%</u>	<u>\$44,417,911</u>	14.30%
12.	Projected payroll	\$337,554,950		\$310,582,417	

^{*} Recommended contributions are assumed to be paid on July 1 and December 31.

Reconciliation of Recommended Contribution

The chart below details the changes in the recommended contribution from the prior valuation to the current year's valuation.

The chart reconciles the contribution from the prior valuation to the amount determined in this valuation.

CHART 15 Reconciliation of Recommended Contribution from July 1, 2004 to July 1, 2006

Preliminary Recommended Contribution as of July 1, 2004	\$50,943,038
Expected increase	\$6,881,972
Effect of investment loss	4,937,079
Effect of increase in veteran's allowances for accidental disability retirees	61,375
Effect of changes in actuarial assumptions	178,147
Effect of salary increases greater than expected	643,027
Effect of net other changes	<u>1,250,972</u>
Total change	<u>\$13,952,572</u>
Preliminary Recommended Contribution as of July 1, 2006	\$64,895,610

E. INFORMATION REQUIRED BY THE GASB

Governmental Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes of governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

Critical information to GASB is the historical comparison of the GASB required contribution to the actual contributions. This comparison demonstrates whether a plan is being funded within the range of the GASB funding requirements. Chart 16 below presents a graphical representation of this information for the Plan.

The other critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the

actuarial value of assets to the actuarial accrued liabilities of the plan as calculated under GASB. High ratios indicate a well-funded plan with assets sufficient to pay most benefits. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors.

Although GASB requires that the actuarial value of assets be used to determine the funded ratio, Chart 17 shows the funded ratio calculated using both the actuarial value of assets and the market value of assets.

The details regarding the calculations of these values and other GASB numbers may be found in Section 4, Exhibits II, III, and IV.

These graphs show key GASB factors.

CHART 16
Required Versus Actual Contributions

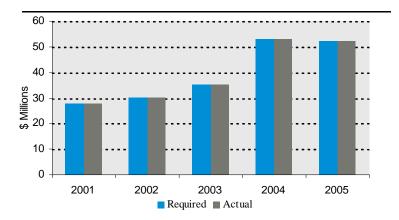
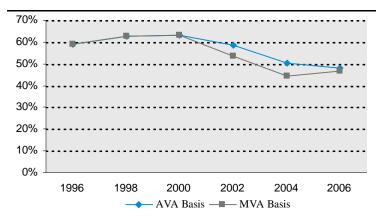


CHART 17 Funded Ratio



SECTION 3: Supplemental Information for the Middlesex Retirement System

EXHIBIT A

Table of Plan Coverage

	Year Ended	December 31	
Category	2005	2003	Change From Prior Year
Active participants in valuation:			
Number	9,106	9,043	0.7%
Average age	46.3	45.3	N/A
Average service	9.1	8.5	N/A
Total payroll	\$318,738,544	\$297,459,982	7.2%
Average payroll	35,003	32,894	6.4%
Account balances	235,793,151	205,639,856	14.7%
Number with unknown age	9	42	-78.6%
Inactive participants with a vested right to a deferred or immediate benefit	78	N/A	N/A
Inactive participants entitled to a return of their contributions	3,080	2,913	N/A
Retired participants:			
Number in pay status	3,649	3,651	-0.1%
Average age	73.0	72.5	N/A
Average monthly benefit	\$1,371	\$1,245	10.1%
Disabled participants:			
Number in pay status	452	454	-0.4%
Average age	64.5	64.3	N/A
Average monthly benefit	\$1,909	\$1,750	9.1%
Beneficiaries in pay status	662	675	-1.9%

EXHIBIT B
Participants in Active Service as of December 31, 2005
By Age, Years of Service, and Average Payroll

	Years of Service									
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	293	289	4							
	\$22,285	\$22,248	\$24,906							
25 - 29	592	498	92	2						
	\$30,076	\$28,382	\$38,868	\$47,493						
30 - 34	629	311	255	58	5					
	\$39,219	\$33,217	\$44,091	\$48,939	\$51,325					
35 - 39	965	394	288	189	85	9				
	\$39,935	\$27,517	\$43,422	\$53,760	\$53,522	\$53,357				
40 - 44	1,397	615	306	150	235	88	3			
	\$35,606	\$21,788	\$33,738	\$47,598	\$58,360	\$57,081	\$46,791			
45 - 49	1,637	648	456	184	183	110	45	11		
	\$33,097	\$22,452	\$28,769	\$35,182	\$55,258	\$58,911	\$60,478	\$65,915		
50 - 54	1,570	429	415	238	226	98	100	56	8	
	\$36,073	\$24,525	\$27,396	\$32,505	\$48,484	\$55,968	\$65,914	\$60,455	\$73,519	
55 – 59	1,171	247	237	219	233	92	48	68	24	3
	\$36,938	\$25,506	\$29,957	\$30,020	\$41,636	\$42,618	\$68,088	\$67,946	\$66,145	\$60,837
60 - 64	590	109	130	106	116	67	28	15	10	9
	\$33,597	\$24,274	\$30,348	\$29,306	\$37,249	\$38,823	\$40,153	\$58,332	\$67,773	\$58,375
65 - 69	167	18	44	31	26	17	19	9	2	1
	\$29,138	\$11,837	\$21,901	\$31,061	\$31,218	\$35,231	\$42,100	\$43,480	\$42,380	\$39,946
70 & over	86	9	13	13	17	7	8	10	6	3
	\$27,929	\$17,064	\$19,835	\$24,023	\$32,308	\$30,209	\$31,634	\$38,633	\$34,983	\$22,714
Unknown	9	9								
	\$33,063	\$33,063								
Total	9,106	3,576	2,240	1,190	1,126	488	251	169	50	16
	\$35,003	\$25,116	\$33,260	\$38,151	\$48,822	\$50,821	\$59,358	\$61,441	\$62,961	\$50,998

EXHIBIT C
Summary Statement of Income and Expenses on an Actuarial Value Basis

	Year Ended Dece	ember 31, 2005	Year Ended December 31, 2004	
Contribution income:				
Employer contributions	\$52,141,963		\$52,708,663	
Employee contributions	28,088,359		25,259,767	
Federal grant reimbursement and other contributions	156,187		<u>193,703</u>	
Net contribution income		\$80,386,509		\$78,162,133
Net investment income		22,046,916		11,844,337
Total income available for benefits		\$102,433,425		\$90,006,470
Less benefit payments:				
Pensions	-\$77,575,992		-\$74,527,032	
Net 3(8)(c) reimbursements	-273,959		-7,166	
Refunds, annuities, & Option B refunds	<u>-2,637,772</u>		<u>-2,424,488</u>	
Net benefit payments		-\$80,487,723		-\$76,958,686
Change in reserve for future benefits		\$21,945,702		\$13,047,784

EXHIBIT D

Development of the Fund Through December 31, 2005

Year Ended December 31	Employer Contributions	Employee Contributions	Other Contributions	Net Investment Return*	Benefit Payments	Actuarial Value of Assets at End of Year
2001	\$27,900,209	\$22,489,216	\$152,881	\$36,865,149	\$56,195,021	\$599,699,143
2002	30,248,147	23,596,154	143,646	10,658,679	58,291,862	606,053,907
2003	35,411,500	26,075,534	134,875	19,335,262	68,847,698	618,163,380
2004	52,708,663	25,259,767	193,703	11,844,337	76,958,686	631,211,164
2005	52,141,963	28,088,359	156,187	22,046,916	80,487,723	653,156,866

^{*} Net of investment fees

EXHIBIT E

Development of Unfunded Actuarial Accrued Liability

		Year E	nded	_
	December 3	31, 2005	Decembe	r 31, 2004
Unfunded actuarial accrued liability at beginning of year		\$615,284,783		\$605,664,747
2. Normal cost at beginning of year		38,752,772		37,624,050
3. Total contributions		-80,386,509		-78,162,133
4. Interest				
(a) For whole year on $(1) + (2)$	\$53,958,098		\$53,071,326	
(b) For half year on (3)	-2,996,113		-2,913,207	
(c) Total interest		50,961,985		50,158,119
5. Expected unfunded actuarial accrued liability		\$624,613,031		\$615,284,783
6. Changes due to:				
(a) Investment loss	\$72,461,926			
(b) Assumption changes	2,014,279			
(c) Veteran's allowance for accidental disability retirees	900,805			
(d) Miscellaneous loss	11,436,062			
(e) Total changes		86,813,072		
7. Unfunded actuarial accrued liability at end of year		711,426,103		

SECTION 3: Supplemental Information for the Middlesex Retirement System

EXHIBIT F
Funding Schedule

(1) Fiscal Year Ended June 30	(2) Employer Normal Cost	(3) Amortization of 1992 ERI Liability	(4) Amortization of 2002 ERI Liability	(5) Amortization of 2003 ERI Liability	(6) Amortization of Littleton Deferral	(7) Amortization of Remaining Unfunded Liability	(8) Total Plan Cost: (2) + (3) + (4) + (5) + (6) + (7)	(9) Total Unfunded Accrued Liability at Beginning of Fiscal Year
2007	\$14,451,363	\$1,021,605	\$1,779,000	\$792,378	\$33,514	\$39,475,782	\$57,553,642	\$740,190,912
2008	15,029,418	1,021,605	1,779,000	792,378	33,514	45,397,149	64,053,064	755,514,029
2009	15,630,595	1,021,605	1,779,000	792,378	33,514	51,976,657	71,233,749	765,817,206
2010	16,255,819	1,021,605	1,779,000	792,378	33,514	54,315,607	74,197,923	769,987,840
2011	16,987,331	-	1,779,000	792,378	26,706	56,759,809	76,345,224	772,020,322
2012	17,751,761	-	1,779,000	792,378	-	59,314,001	79,637,140	772,717,967
2013	18,550,590	-	1,779,000	792,378	-	61,983,131	83,105,099	770,790,853
2014	19,385,367	-	1,779,000	792,378	-	64,772,372	86,729,117	765,872,117
2015	20,257,709	-	1,779,000	792,378	-	67,687,128	90,516,215	757,587,481
2016	21,169,306	-	1,779,000	792,378	-	70,733,049	94,473,733	745,526,055
2017	22,121,925	-	1,779,000	792,378	-	73,916,036	98,609,339	729,237,054
2018	23,117,412	-	1,779,000	792,378	-	77,242,258	102,931,048	708,226,240
2019	24,157,696	-	1,779,000	792,378	-	80,718,160	107,447,234	681,952,055
2020	25,244,792	-	-	792,378	-	84,350,477	110,387,647	649,821,421
2021	26,380,808	-	-	-	-	88,146,248	114,527,056	613,073,162
2022	27,567,944	-	-	-	-	92,112,829	119,680,773	570,105,797
2023	28,808,501	-	-	-	-	96,257,907	125,066,408	519,384,059
2024	30,104,884	-	-	-	-	100,589,513	130,694,397	460,078,781
2025	31,459,604	-	-	-	-	105,116,041	136,575,645	391,283,867
2026	32,875,286	-	-	-	-	109,846,262	142,721,548	312,009,559
2027	34,354,674	-	-	-	-	114,789,344	149,144,018	221,175,136
2028	35,900,634	-	-	-	-	119,954,865	155,855,499	117,600,989

Notes: Recommended contributions are assumed to be paid on July 1 and December 31.

Item (4) reflects full payment of the 2002 ERI liability by Dracut.

Item (1) increases at 4% per year through 2010 and 4.5% per year thereafter. Item (7) increases at 4.5% per year.

Fiscal 2007 appropriation is budgeted amount determined with prior valuation.

EXHIBIT G		
Unit Results		
Summary of Actuarial Valuation Results for Total		
The valuation was made with respect to the following data supplied to us:		
1. Retired participants as of the valuation date (including 662 beneficiaries in pay status)		4,763
2. Participants active during the year ended December 31, 2005		9,106
3. Inactive participants entitled to a return of their employee contributions		3,080
4. Inactive participants with a vested right to a deferred or immediate benefit		78
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$42,967,127
2. Expected employee contributions		<u>-29,074,475</u>
3. Employer normal cost: (1) + (2)		\$13,892,652
4. Actuarial accrued liability		1,364,582,969
Retired participants and beneficiaries	\$701,130,551	
Active participants	646,287,816	
Inactive participants	17,164,584	
5. Actuarial value of assets		653,156,866
6. Unfunded actuarial accrued liability		711,426,103
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payroll
Projected employer normal cost, adjusted for timing	\$14,451,363	4.28%
2. Projected unfunded actuarial accrued liability	740,190,912	
 Payment on projected unfunded actuarial accrued liability, adjusted for timing 	39,475,782	
Payment on 1992 ERI, adjusted for timing	1,021,605	
5. Payment on 2002 ERI, adjusted for timing	1,779,000	
6. Payment on 2003 ERI, adjusted for timing	<u>792,378</u>	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$57,553,642	17.05%
3. Total FY07 Appropriation, payable on July 1	56,418,355	16.71%
Projected Payroll	337,554,978	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$15,029,418	\$15,630,595
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	45,397,149	51,976,657
3. Payment on 1992 ERI, adjusted for timing	1,021,605	1,021,605
Payment on 2002 ERI, adjusted for timing	1,779,000	1,779,000
5. Payment on 2003 ERI, adjusted for timing	<u>792,378</u>	<u>792,378</u>
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$64,053,064	\$71,233,749
7. Total Appropriation, payable on July 1	62,789,353	69,836,890

Notes: Recommended contributions are assumed to be paid on July 1 and December 31, unless otherwise noted.

Littleton chose to defer \$261,000 from the fiscal year 2004 appropriation. On October 8, 2004, \$133,000 was paid towards this deferral.

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Middlesex County		(100)
The valuation was made with respect to the following data supplied to us:		
. Retired participants as of the valuation date (including 110 beneficiaries in pay status)		333
2. Participants active during the year ended December 31, 2005		
3. Inactive participants entitled to a return of their employee contributions		1′
Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
. Total normal cost		\$ (
2. Expected employee contributions		· - (
Employer normal cost: $(1) + (2)$		\$
4. Actuarial accrued liability		32,068,03
Retired participants and beneficiaries	\$31,791,461	
Active participants	0	
Inactive participants	276,574	
5. Actuarial value of assets		32,068,03
5. Unfunded actuarial accrued liability		(
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payro
Projected employer normal cost, adjusted for timing	\$ 0	0.00%
Projected unfunded actuarial accrued liability	0	
B. Payment on projected unfunded actuarial accrued liability, adjusted for timing	0	
Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
5. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$ 0	0.00%
3. Total FY07 Appropriation, payable on July 1	0	0.00%
Projected Payroll	0	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$ 0	\$ 0
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	0	0
Payment on 1992 ERI, adjusted for timing	0	0
Payment on 2002 ERI, adjusted for timing	0	0
5. Payment on 2003 ERI, adjusted for timing	_0	0
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$ 0	\$ 0
7. Total Appropriation, payable on July 1	0	0

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Middlesex Hospital		(200)
The valuation was made with respect to the following data supplied to us:		, ,
1. Retired participants as of the valuation date (including 15 beneficiaries in pay status)		162
2. Participants active during the year ended December 31, 2005		(
3. Inactive participants entitled to a return of their employee contributions		14
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$ (
2. Expected employee contributions		- (
3. Employer normal cost: (1) + (2)		\$ (
4. Actuarial accrued liability		14,473,918
Retired participants and beneficiaries	\$14,114,326	
Active participants	0	
Inactive participants	359,592	
5. Actuarial value of assets		14,473,918
6. Unfunded actuarial accrued liability		(
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payroll
 Projected employer normal cost, adjusted for timing 	\$ O	0.00%
2. Projected unfunded actuarial accrued liability	0	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	0	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$ 0	0.00%
8. Total FY07 Appropriation, payable on July 1	0	0.00%
9. Projected Payroll	0	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$ 0	\$ 0
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	0	(
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	_0	
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$ 0	\$ 0
7. Total Appropriation, payable on July 1	0	C

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SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actu	arial Valuation Results for Town of Acton		(300)
The valuation was	made with respect to the following data supplied to us:		,
 Retired participan 	s as of the valuation date (including 12 beneficiaries in pay status)		122
	during the year ended December 31, 2005		348
Inactive participar	ts entitled to a return of their employee contributions		75
 Inactive participar 	ts with a vested right to a deferred or immediate benefit		2
The actuarial factor	rs as of January 1, 2006 are as follows:		
1. Total normal cost			\$1,581,815
Expected employe	e contributions		-1,069,847
3. Employer normal			\$511,968
4. Actuarial accrued			47,397,373
	ipants and beneficiaries	\$19,282,739	, ,
Active partic		27,537,129	
Inactive parti		577,505	
 Actuarial value of 		,	23,616,228
Unfunded actuaria	l accrued liability		23,781,145
The actuarial factor	rs projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
1. Projected employe	r normal cost, adjusted for timing	\$532,557	4.17%
	d actuarial accrued liability	24,742,680	
	ted unfunded actuarial accrued liability, adjusted for timing	1,466,583	
	ERI, adjusted for timing	0	
	ERI, adjusted for timing	0	
	ERI, adjusted for timing	0	
7. Total FY07 Appro	priation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$1,999,140	15.65%
8. Total FY07 Appro	priation, payable on July 1	1,959,910	15.34%
9. Projected Payroll		12,777,405	
The actuarial factor	rs projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
 Projected employe 	r normal cost, adjusted for timing	\$553,859	\$576,013
	ted unfunded actuarial accrued liability, adjusted for timing	1,564,519	1,791,268
3. Payment on 1992	ERI, adjusted for timing	0	0
	ERI, adjusted for timing	0	0
	ERI, adjusted for timing	_0	_0
6. Total Appropriation	n: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$2,118,378	\$2,367,281
	n, payable on July 1	2,076,562	2,320,847

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Ashby		(400)
The valuation was made with respect to the following data supplied to us:		,
1. Retired participants as of the valuation date (including 4 beneficiaries in pay status)		13
2. Participants active during the year ended December 31, 2005		23
3. Inactive participants entitled to a return of their employee contributions		11
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$103,800
2. Expected employee contributions		-64,008
3. Employer normal cost: $(1) + (2)$		\$39,792
4. Actuarial accrued liability		2,145,068
Retired participants and beneficiaries	\$1,374,369	, ,
Active participants	746,202	
Inactive participants	24,497	
5. Actuarial value of assets	,	1,027,932
6. Unfunded actuarial accrued liability		1,117,136
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$41,392	5.88%
2. Projected unfunded actuarial accrued liability	1,162,305	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	67,106	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$108,498	15.41%
8. Total FY07 Appropriation, payable on July 1	106,349	15.11%
9. Projected Payroll	703,925	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$43,048	\$44,770
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	73,612	84,281
3. Payment on 1992 ERI, adjusted for timing	0	C
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	0	
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$116,660	\$129,051
7. Total Appropriation, payable on July 1	114,360	126,520

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Resu	Its for Town of Ashland		(500)	
The valuation was made with respect to	the following data supplied to us:		, ,	
1. Retired participants as of the valuation date			87	
2. Participants active during the year ended De			304	
3. Inactive participants entitled to a return of the			102	
4. Inactive participants with a vested right to a			4	
The actuarial factors as of January 1, 20	06 are as follows:			
Total normal cost			\$1,341,394	
2. Expected employee contributions			-921,288	
3. Employer normal cost: (1) + (2)			\$420,106	
4. Actuarial accrued liability			31,014,399	
Retired participants and beneficiaries		\$14,730,978	, ,	
Active participants		15,561,700		
Inactive participants		721,721		
5. Actuarial value of assets		ŕ	14,259,479	
6. Unfunded actuarial accrued liability			16,754,920	
The actuarial factors projected to FY07	are as follows:	<u>Amount</u>	% of Payrol	
1. Projected employer normal cost, adjusted fo	r timing	\$437,001	4.18%	
Projected unfunded actuarial accrued liabilit		17,432,366		
3. Payment on projected unfunded actuarial ac		869,396		
4. Payment on 1992 ERI, adjusted for timing		0		
5. Payment on 2002 ERI, adjusted for timing		182,900		
6. Payment on 2003 ERI, adjusted for timing		<u>55,929</u>		
7. Total FY07 Appropriation: $(1) + (3) + (4) + (4)$	(5) + (6), adjusted for timing	\$1,545,226	14.77%	
8. Total FY07 Appropriation, payable on July	1	1,514,904	14.48%	
9. Projected Payroll		10,460,677		
The actuarial factors projected to FY08	and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>	
1. Projected employer normal cost, adjusted fo		\$454,481	\$472,660	
2. Payment on projected unfunded actuarial ac	crued liability, adjusted for timing	979,092	1,120,994	
B. Payment on 1992 ERI, adjusted for timing		0	C	
4. Payment on 2002 ERI, adjusted for timing		182,900	182,900	
5. Payment on 2003 ERI, adjusted for timing		<u>55,929</u>	55,929	
6. Total Appropriation: $(1) + (2) + (3) + (4) + (4)$	5), adjusted for timing	\$1,672,402	\$1,832,483	
7. Total Appropriation, payable on July 1		1,639,431	1,796,537	

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial	Summary of Actuarial Valuation Results for Town of Ayer		(600)
The valuation was made	with respect to the following data supplied to us:		
. Retired participants as of	the valuation date (including 12 beneficiaries in pay status)		83
	the year ended December 31, 2005		164
3. Inactive participants enti-	led to a return of their employee contributions		88
Inactive participants with	a vested right to a deferred or immediate benefit		2
The actuarial factors as α	of January 1, 2006 are as follows:		
. Total normal cost	•		\$740,405
. Expected employee contr	ributions		-497,745
3. Employer normal cost: (\$242,660
4. Actuarial accrued liabilit			21,441,034
Retired participants		\$9,723,354	, ,
Active participants		11,289,830	
Inactive participants		427,850	
5. Actuarial value of assets		,	10,125,009
Unfunded actuarial accru	ed liability		11,316,025
The actuarial factors pro	jected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer norm	al cost, adjusted for timing	\$252,419	4.37%
Projected unfunded actual		11,773,563	
	funded actuarial accrued liability, adjusted for timing	658,893	
4. Payment on 1992 ERI, a		0	
5. Payment on 2002 ERI, a		16,000	
6. Payment on 2003 ERI, a	ljusted for timing	17,439	
7. Total FY07 Appropriation	n: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$944,751	16.34%
8. Total FY07 Appropriation	n, payable on July 1	926,212	16.02%
Projected Payroll		5,781,066	
The actuarial factors pro	jected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
. Projected employer norm	al cost, adjusted for timing	\$262,516	\$273,017
Payment on projected un	funded actuarial accrued liability, adjusted for timing	728,043	833,560
3. Payment on 1992 ERI, a		0	0
I. Payment on 2002 ERI, a		16,000	16,000
5. Payment on 2003 ERI, a		17,439	17,439
6. Total Appropriation: (1)	+(2) + (3) + (4) + (5), adjusted for timing	\$1,023,998	\$1,140,016
7. Total Appropriation, pay	able on July 1	1,003,789	1,117,653

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Bedford		(700)
The valuation was made with respect to the following data supplied to us:		-
. Retired participants as of the valuation date (including 20 beneficiaries in pay status)		152
Participants active during the year ended December 31, 2005		363
. Inactive participants entitled to a return of their employee contributions		149
. Inactive participants with a vested right to a deferred or immediate benefit		1
The actuarial factors as of January 1, 2006 are as follows:		
. Total normal cost		\$1,650,637
. Expected employee contributions		-1,190,932
Employer normal cost: $(1) + (2)$		\$459,705
. Actuarial accrued liability		46,962,537
Retired participants and beneficiaries	\$23,036,258	, ,
Active participants	23,094,160	
Inactive participants	832,119	
. Actuarial value of assets		21,849,944
. Unfunded actuarial accrued liability		25,112,593
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
. Projected employer normal cost, adjusted for timing	\$478,193	3.53%
. Projected unfunded actuarial accrued liability	26,127,961	
. Payment on projected unfunded actuarial accrued liability, adjusted for timing	1,449,177	
. Payment on 1992 ERI, adjusted for timing	0	
. Payment on 2002 ERI, adjusted for timing	0	
5. Payment on 2003 ERI, adjusted for timing	_0	
Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$1,927,370	14.21%
. Total FY07 Appropriation, adjusted for timing*	1,889,193	13.93%
. Projected Payroll	13,562,725	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$497,321	\$517,214
Payment on projected unfunded actuarial accrued liability, adjusted for timing	1,658,662	1,899,056
Payment on 1992 ERI, adjusted for timing	0	(
. Payment on 2002 ERI, adjusted for timing	0	(
. Payment on 2003 ERI, adjusted for timing	_0	
Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$2,155,983	\$2,416,270
. Total Appropriation, payable on July 1	2,113,436	2,368,899

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Billerica	(800)	
The valuation was made with respect to the following data supplied to us:		•
1. Retired participants as of the valuation date (including 65 beneficiaries in pay status)		383
2. Participants active during the year ended December 31, 2005		583
3. Inactive participants entitled to a return of their employee contributions		50
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$3,131,720
2. Expected employee contributions		-2,138,941
3. Employer normal cost: (1) + (2)		\$992,779
4. Actuarial accrued liability		127,486,849
Retired participants and beneficiaries	\$67,192,588	
Active participants	59,678,109	
Inactive participants	616,151	
5. Actuarial value of assets		59,581,809
6. Unfunded actuarial accrued liability		67,905,040
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$1,032,704	4.09%
2. Projected unfunded actuarial accrued liability	70,650,619	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	3,981,944	
4. Payment on 1992 ERI, adjusted for timing	296,425	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$5,311,073	21.03%
8. Total FY07 Appropriation, payable on July 1	5,205,872	20.62%
9. Projected Payroll	25,251,174	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$1,074,011	\$1,116,971
Payment on projected unfunded actuarial accrued liability, adjusted for timing	4,411,338	5,050,676
3. Payment on 1992 ERI, adjusted for timing	296,425	296,425
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	_0	
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$5,781,774	\$6,464,072
7. Total Appropriation, payable on July 1	5,667,683	6,337,356

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Boxborough		(900)
The valuation was made with respect to the following data supplied to us:		
Retired participants as of the valuation date (including 2 beneficiaries in pay status)		23
2. Participants active during the year ended December 31, 2005		74
3. Inactive participants entitled to a return of their employee contributions		16
Inactive participants with a vested right to a deferred or immediate benefit]
The actuarial factors as of January 1, 2006 are as follows:		
. Total normal cost		\$351,181
2. Expected employee contributions		-252,073
3. Employer normal cost: (1) + (2)		\$99,108
4. Actuarial accrued liability		7,889,729
Retired participants and beneficiaries	\$3,342,159	.,,.
Active participants	4,445,724	
Inactive participants	101,846	
5. Actuarial value of assets	,	3,866,172
6. Unfunded actuarial accrued liability		4,023,55
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payro
Projected employer normal cost, adjusted for timing	\$103,094	3.67%
2. Projected unfunded actuarial accrued liability	4,186,240	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	214,811	
Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
5. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$317,905	11.31%
3. Total FY07 Appropriation, payable on July 1	311,667	11.09%
Projected Payroll	2,810,952	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$107,218	\$111,507
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	266,896	305,577
B. Payment on 1992 ERI, adjusted for timing	0	(
Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	0	
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$374,114	\$417,084
7. Total Appropriation, payable on July 1	366,730	408,903

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Burlington		(1000)
The valuation was made with respect to the following data supplied to us:		, ,
Retired participants as of the valuation date (including 40 beneficiaries in pay status)		335
2. Participants active during the year ended December 31, 2005		477
3. Inactive participants entitled to a return of their employee contributions		237
4. Inactive participants with a vested right to a deferred or immediate benefit		10
The actuarial factors as of January 1, 2006 are as follows:		
. Total normal cost		\$2,675,973
Expected employee contributions		-1,836,878
Employer normal cost: (1) + (2)		\$839,095
Actuarial accrued liability		112,286,159
Retired participants and beneficiaries	\$62,664,008	
Active participants	48,209,814	
Inactive participants	1,412,336	
5. Actuarial value of assets		47,552,352
5. Unfunded actuarial accrued liability		64,733,807
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$872,840	4.08%
Projected unfunded actuarial accrued liability	67,351,165	
B. Payment on projected unfunded actuarial accrued liability, adjusted for timing	3,627,329	
Payment on 1992 ERI, adjusted for timing	150,501	
5. Payment on 2002 ERI, adjusted for timing	268,400	
5. Payment on 2003 ERI, adjusted for timing	<u>72,011</u>	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$4,991,081	23.31%
3. Total FY07 Appropriation, payable on July 1	4,892,218	22.85%
Projected Payroll	21,414,114	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$907,754	\$944,064
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	4,056,643	4,644,582
Payment on 1992 ERI, adjusted for timing	150,501	150,501
Payment on 2002 ERI, adjusted for timing	268,400	268,400
5. Payment on 2003 ERI, adjusted for timing	<u>72,011</u>	72,011
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$5,455,309	\$6,079,558
7. Total Appropriation, payable on July 1	5,347,677	5,960,373

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Carlisle		(1100)
The valuation was made with respect to the following data supplied to us:		,
1. Retired participants as of the valuation date (including 1 beneficiaries in pay status)		25
2. Participants active during the year ended December 31, 2005		122
3. Inactive participants entitled to a return of their employee contributions		58
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$501,418
2. Expected employee contributions		-339,329
3. Employer normal cost: (1) + (2)		\$162,089
4. Actuarial accrued liability		9,261,895
Retired participants and beneficiaries	\$3,662,073	., . ,
Active participants	5,401,671	
Inactive participants	198,150	
5. Actuarial value of assets	,	4,764,828
6. Unfunded actuarial accrued liability		4,497,067
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$168,608	4.36%
2. Projected unfunded actuarial accrued liability	4,678,894	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	253,663	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$422,271	10.91%
8. Total FY07 Appropriation, payable on July 1	413,985	10.70%
9. Projected Payroll	3,870,315	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$175,352	\$182,366
Payment on projected unfunded actuarial accrued liability, adjusted for timing	297,412	340,516
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	_0	
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$472,764	\$522,882
7. Total Appropriation, payable on July 1	463,440	512,625

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Chelmsford		(1200)
The valuation was made with respect to the following data supplied to us:		
1. Retired participants as of the valuation date (including 54 beneficiaries in pay status)		380
2. Participants active during the year ended December 31, 2005		587
3. Inactive participants entitled to a return of their employee contributions		104
4. Inactive participants with a vested right to a deferred or immediate benefit		5
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$2,712,279
2. Expected employee contributions		-1,729,402
3. Employer normal cost: $(1) + (2)$		\$982,877
4. Actuarial accrued liability		94,007,306
Retired participants and beneficiaries	\$55,213,168	
Active participants	38,173,508	
Inactive participants	620,629	
5. Actuarial value of assets		41,831,870
6. Unfunded actuarial accrued liability		52,175,436
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$1,022,404	5.05%
2. Projected unfunded actuarial accrued liability	54,285,024	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	2,852,451	
4. Payment on 1992 ERI, adjusted for timing	264,316	
5. Payment on 2002 ERI, adjusted for timing	301,900	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$4,441,071	21.92%
8. Total FY07 Appropriation, payable on July 1	4,353,103	21.48%
9. Projected Payroll	20,262,093	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$1,063,300	\$1,105,832
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	3,226,850	3,694,525
3. Payment on 1992 ERI, adjusted for timing	264,316	264,316
4. Payment on 2002 ERI, adjusted for timing	301,900	301,900
5. Payment on 2003 ERI, adjusted for timing	_0	0
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$4,856,366	\$5,366,573
7. Total Appropriation, payable on July 1	4,760,613	5,261,362

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Dracut		(1300)
The valuation was made with respect to the following data supplied to us:		,
1. Retired participants as of the valuation date (including 24 beneficiaries in pay status)		184
2. Participants active during the year ended December 31, 2005		295
3. Inactive participants entitled to a return of their employee contributions		87
4. Inactive participants with a vested right to a deferred or immediate benefit		C
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$1,490,029
2. Expected employee contributions		-980,048
3. Employer normal cost: $(1) + (2)$		\$509,981
4. Actuarial accrued liability		57,440,391
Retired participants and beneficiaries	\$31,632,729	, ,
Active participants	25,505,111	
Inactive participants	302,550	
5. Actuarial value of assets		28,080,398
6. Unfunded actuarial accrued liability		29,359,993
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$530,491	4.62%
2. Projected unfunded actuarial accrued liability	30,547,094	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	1,761,665	
4. Payment on 1992 ERI, adjusted for timing	58,129	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$2,350,285	20.47%
8. Total FY07 Appropriation, payable on July 1	2,304,165	20.06%
9. Projected Payroll	11,484,222	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$551,711	\$573,779
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	1,921,123	2,199,556
3. Payment on 1992 ERI, adjusted for timing	58,129	58,129
4. Payment on 2002 ERI, adjusted for timing	0	0
5. Payment on 2003 ERI, adjusted for timing	_0	0
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$2,530,963	\$2,831,464
7. Total Appropriation, payable on July 1	2,480,993	2,775,923

Notes: Recommended contributions are assumed to be paid on July 1 and December 31, unless otherwise noted. 2002 ERI liability paid off in full with a payment of \$2,260,409 in November, 2005.

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Dunstable		(1400)
The valuation was made with respect to the following data supplied to us:		, ,
1. Retired participants as of the valuation date (including 1 beneficiaries in pay status)		5
2. Participants active during the year ended December 31, 2005		19
3. Inactive participants entitled to a return of their employee contributions		4
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$93,554
2. Expected employee contributions		-61,849
3. Employer normal cost: (1) + (2)		\$31,705
4. Actuarial accrued liability		2,236,368
Retired participants and beneficiaries	\$1,212,749	
Active participants	997,975	
Inactive participants	25,643	
5. Actuarial value of assets		813,632
6. Unfunded actuarial accrued liability		1,422,736
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payro
Projected employer normal cost, adjusted for timing	\$32,980	4.829
2. Projected unfunded actuarial accrued liability	1,480,260	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	52,671	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$85,651	12.529
8. Total FY07 Appropriation, payable on July 1	83,954	12.279
9. Projected Payroll	684,192	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$34,299	\$35,671
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	95,907	109,807
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	_0	
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$130,206	\$145,478
7. Total Appropriation, payable on July 1	127,637	142,626

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Res	sults for Town of Groton		(1500)
The valuation was made with respect t	o the following data supplied to us:		,
1. Retired participants as of the valuation da			58
2. Participants active during the year ended 1			102
3. Inactive participants entitled to a return of			19
4. Inactive participants with a vested right to			1
The actuarial factors as of January 1, 2	2006 are as follows:		
Total normal cost			\$657.030
2. Expected employee contributions			-430,596
3. Employer normal cost: $(1) + (2)$			\$226,434
4. Actuarial accrued liability			18,326,947
Retired participants and beneficiaries	S	\$10,771,298	
Active participants		7,254,755	
Inactive participants		300,893	
5. Actuarial value of assets		,	7,524,627
6. Unfunded actuarial accrued liability			10,802,320
The actuarial factors projected to FY0	7 are as follows:	<u>Amount</u>	% of Payrol
1. Projected employer normal cost, adjusted	for timing	\$235,540	5.02%
2. Projected unfunded actuarial accrued liab		11,239,085	
3. Payment on projected unfunded actuarial	accrued liability, adjusted for timing	479,348	
4. Payment on 1992 ERI, adjusted for timing		0	
5. Payment on 2002 ERI, adjusted for timing		192,200	
6. Payment on 2003 ERI, adjusted for timing		<u>19,675</u>	
7. Total FY07 Appropriation: $(1) + (3) + (4)$	+ (5) $+$ (6), adjusted for timing	\$926,763	19.76%
8. Total FY07 Appropriation, payable on Jul	y 1	908,577	19.38%
9. Projected Payroll		4,689,341	
The actuarial factors projected to FY0	8 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
1. Projected employer normal cost, adjusted	for timing	\$244,962	\$254,760
2. Payment on projected unfunded actuarial	accrued liability, adjusted for timing	604,815	692,472
3. Payment on 1992 ERI, adjusted for timing		0	0
4. Payment on 2002 ERI, adjusted for timing		192,200	192,200
5. Payment on 2003 ERI, adjusted for timing		<u>19,675</u>	<u>19,675</u>
6. Total Appropriation: $(1) + (2) + (3) + (4)$	+ (5), adjusted for timing	\$1,061,652	\$1,159,107
7. Total Appropriation, payable on July 1		1,040,723	1,136,369

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Holliston		(1600)
The valuation was made with respect to the following data supplied to us:		` '
1. Retired participants as of the valuation date (including 8 beneficiaries in pay status)		99
2. Participants active during the year ended December 31, 2005		241
3. Inactive participants entitled to a return of their employee contributions		151
4. Inactive participants with a vested right to a deferred or immediate benefit		3
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$1,000,652
2. Expected employee contributions		-684,988
3. Employer normal cost: (1) + (2)		\$315,664
4. Actuarial accrued liability		25,979,501
Retired participants and beneficiaries	\$11,560,776	
Active participants	13,647,970	
Inactive participants	770,754	
5. Actuarial value of assets		12,931,874
6. Unfunded actuarial accrued liability		13,047,627
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$328,359	4.14%
2. Projected unfunded actuarial accrued liability	13,575,176	
B. Payment on projected unfunded actuarial accrued liability, adjusted for timing	751,221	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	57,200	
6. Payment on 2003 ERI, adjusted for timing	<u>21,238</u>	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$1,158,018	14.60%
8. Total FY07 Appropriation, payable on July 1	1,135,294	14.32%
9. Projected Payroll	7,930,293	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$341,493	\$355,153
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	817,830	936,359
3. Payment on 1992 ERI, adjusted for timing	0	0
Payment on 2002 ERI, adjusted for timing	57,200	57,200
5. Payment on 2003 ERI, adjusted for timing	<u>21,238</u>	21,238
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$1,237,761	\$1,369,950
7. Total Appropriation, payable on July 1	1,213,343	1,343,077

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Hopkinton		(1700)
The valuation was made with respect to the following data supplied to us:		, ,
1. Retired participants as of the valuation date (including 8 beneficiaries in pay status)		51
2. Participants active during the year ended December 31, 2005		266
3. Inactive participants entitled to a return of their employee contributions		176
4. Inactive participants with a vested right to a deferred or immediate benefit		3
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$1,307,920
2. Expected employee contributions		-860,548
3. Employer normal cost: (1) + (2)		\$447,372
4. Actuarial accrued liability		22,351,090
Retired participants and beneficiaries	\$6,416,778	, ,
Active participants	15,341,008	
Inactive participants	593,303	
5. Actuarial value of assets	,	11,741,615
6. Unfunded actuarial accrued liability		10,609,475
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$465,364	4.78%
2. Projected unfunded actuarial accrued liability	11,038,443	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	577,104	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$1,042,468	10.71%
3. Total FY07 Appropriation, payable on July 1	1,022,011	10.50%
Projected Payroll	9,732,247	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$483,979	\$503,338
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	703,058	804,954
3. Payment on 1992 ERI, adjusted for timing	0	C
4. Payment on 2002 ERI, adjusted for timing	0	C
5. Payment on 2003 ERI, adjusted for timing	_0	0
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$1,187,037	\$1,308,292
7. Total Appropriation, payable on July 1	1,163,632	1,282,626

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summa	ary of Actuarial Valuation Results for Town of Hudson		(1800)
The val	uation was made with respect to the following data supplied to us:		, ,
	red participants as of the valuation date (including 25 beneficiaries in pay status)		180
	icipants active during the year ended December 31, 2005		388
	tive participants entitled to a return of their employee contributions		127
4. Inac	tive participants with a vested right to a deferred or immediate benefit		2
The act	uarial factors as of January 1, 2006 are as follows:		
1. Tota	al normal cost		\$1,908,424
2. Exp	ected employee contributions		-1,274,442
	ployer normal cost: $(1) + (2)$		\$633,982
4. Acti	uarial accrued liability		60,482,070
	Retired participants and beneficiaries	\$29,238,506	•
	Active participants	30,699,261	
	Inactive participants	544,302	
5. Actu	uarial value of assets		28,205,216
6. Unfi	unded actuarial accrued liability		32,276,854
The act	uarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
1. Proj	ected employer normal cost, adjusted for timing	\$659,478	4.42%
2. Proj	ected unfunded actuarial accrued liability	33,581,891	
3. Payı	ment on projected unfunded actuarial accrued liability, adjusted for timing	1,846,806	
4. Payı	ment on 1992 ERI, adjusted for timing	0	
Payı	ment on 2002 ERI, adjusted for timing	0	
	ment on 2003 ERI, adjusted for timing	0	
	al FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$2,506,284	16.81%
	al FY07 Appropriation, payable on July 1	2,456,640	16.48%
9. Proj	ected Payroll	14,907,902	
The act	uarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
1. Proj	ected employer normal cost, adjusted for timing	\$685,857	\$713,291
2. Payı	ment on projected unfunded actuarial accrued liability, adjusted for timing	2,132,894	2,442,020
3. Payı	ment on 1992 ERI, adjusted for timing	0	0
4. Payı	ment on 2002 ERI, adjusted for timing	0	0
5. Payı	ment on 2003 ERI, adjusted for timing	_0	0
	Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$2,818,751	\$3,155,311
7. Tota	al Appropriation, payable on July 1	2,763,132	3,093,453

SECTION 3: Supplemental Information for the Middlesex Retirement System

Sumi	mary of Actuarial Valuation Results for Town of Lincoln		(1900)
The v	raluation was made with respect to the following data supplied to us:		, ,
	etired participants as of the valuation date (including 7 beneficiaries in pay status)		72
	articipants active during the year ended December 31, 2005		238
	nactive participants entitled to a return of their employee contributions		170
	nactive participants with a vested right to a deferred or immediate benefit		1
The a	ctuarial factors as of January 1, 2006 are as follows:		
1. T	otal normal cost		\$932,670
2. E	xpected employee contributions		-637,894
	mployer normal cost: $(1) + (2)$		\$294,776
	ctuarial accrued liability		25,473,594
	Retired participants and beneficiaries	\$11,376,903	- , ,
	Active participants	13,535,926	
	Inactive participants	560,764	
5. A	ctuarial value of assets	,	11,765,970
6. U	nfunded actuarial accrued liability		13,707,624
The a	ctuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
1. P	rojected employer normal cost, adjusted for timing	\$306,631	4.06%
	rojected unfunded actuarial accrued liability	14,261,858	
3. Pa	ayment on projected unfunded actuarial accrued liability, adjusted for timing	750,003	
	ayment on 1992 ERI, adjusted for timing	0	
5. Pa	ayment on 2002 ERI, adjusted for timing	0	
6. Pa	ayment on 2003 ERI, adjusted for timing	_0	
7. T	otal FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$1,056,634	13.99%
8. T	otal FY07 Appropriation, payable on July 1	1,035,899	13.72%
9. P	rojected Payroll	7,551,750	
The a	ctuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
1. Pr	rojected employer normal cost, adjusted for timing	\$318,896	\$331,652
2. Pa	ayment on projected unfunded actuarial accrued liability, adjusted for timing	908,075	1,039,685
3. Pa	ayment on 1992 ERI, adjusted for timing	0	0
4. Pa	ayment on 2002 ERI, adjusted for timing	0	0
5. Pa	ayment on 2003 ERI, adjusted for timing	_0	_0
6. T	otal Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$1,226,971	\$1,371,337
7. T	otal Appropriation, payable on July 1	1,202,751	1,344,438

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summa	ary of Actuarial Valuation Results for Town of Littleton		(2000)
The val	luation was made with respect to the following data supplied to us:		,
	ired participants as of the valuation date (including 11 beneficiaries in pay status)		76
	icipants active during the year ended December 31, 2005		214
	ctive participants entitled to a return of their employee contributions		62
	ctive participants with a vested right to a deferred or immediate benefit		2
The act	uarial factors as of January 1, 2006 are as follows:		
1. Tota	al normal cost		\$999.923
	ected employee contributions		-707,322
	ployer normal cost: $(1) + (2)$		\$292,601
	uarial accrued liability		25,458,891
	Retired participants and beneficiaries	\$10,629,347	-,,
	Active participants	14,387,979	
	Inactive participants	441,564	
5. Act	uarial value of assets	,	11,912,040
6. Unf	unded actuarial accrued liability		13,546,851
The act	uarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
1. Pro	ected employer normal cost, adjusted for timing	\$304,368	3.85%
	ected unfunded actuarial accrued liability	14,094,585	
	ment on projected unfunded actuarial accrued liability, adjusted for timing	697,657	
	ment on 1992 ERI, adjusted for timing	4,711	
	ment on 2002 ERI, adjusted for timing	82,800	
6. Pay	ment on 2003 ERI, adjusted for timing	48,836	
7. Tota	al FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$1,171,886	14.81%
8. Tota	al FY07 Appropriation, payable on July 1	1,148,890	14.52%
9. Proj	ected Payroll	7,915,181	
The act	uarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
1. Pro	ected employer normal cost, adjusted for timing	\$316,543	\$329,205
2. Pay	ment on projected unfunded actuarial accrued liability, adjusted for timing	815,777	934,010
3. Pay	ment on 1992 ERI, adjusted for timing	4,711	4,711
4. Pay	ment on 2002 ERI, adjusted for timing	82,800	82,800
5. Pay	ment on 2003 ERI, adjusted for timing	<u>48,836</u>	48,836
6. Tota	al Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$1,302,181	\$1,433,076
7. Tota	al Appropriation, payable on July 1	1,276,500	1,404,964

Notes: Recommended contributions are assumed to be paid on July 1 and December 31, unless otherwise noted.

Littleton chose to defer \$261,000 from the fiscal year 2004 appropriation. On October 8, 2004, \$133,000 was paid towards this deferral.

SECTION 3: Supplemental Information for the Middlesex Retirement System

Sumn	nary of Actuarial Valuation Results for Town of North Reading		(2100)
The va	aluation was made with respect to the following data supplied to us:		
1. Re	tired participants as of the valuation date (including 21 beneficiaries in pay status)		140
	rticipants active during the year ended December 31, 2005		254
3. Ina	active participants entitled to a return of their employee contributions		56
4. Ina	active participants with a vested right to a deferred or immediate benefit		2
	etuarial factors as of January 1, 2006 are as follows:		
1. To	tal normal cost		\$1,225,141
2. Ex	pected employee contributions		-832,355
	pployer normal cost: $(1) + (2)$		\$392,786
	tuarial accrued liability		43,693,117
	Retired participants and beneficiaries	\$20,733,441	, ,
	Active participants	22,650,743	
	Inactive participants	308,932	
5. Ac	tuarial value of assets	•	21,035,041
6. Un	funded actuarial accrued liability		22,658,076
The ac	etuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
1. Pro	pjected employer normal cost, adjusted for timing	\$408,582	4.13%
	ojected unfunded actuarial accrued liability	23,574,201	
	yment on projected unfunded actuarial accrued liability, adjusted for timing	1,321,613	
4. Pa	yment on 1992 ERI, adjusted for timing	0	
5. Pa	yment on 2002 ERI, adjusted for timing	21,900	
6. Pa	yment on 2003 ERI, adjusted for timing	<u>57,753</u>	
7. To	tal FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$1,809,848	18.30%
8. To	tal FY07 Appropriation, payable on July 1	1,773,999	17.94%
9. Pro	ojected Payroll	9,890,963	
The ac	etuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
1. Pro	ojected employer normal cost, adjusted for timing	\$424,925	\$441,922
2. Pa	yment on projected unfunded actuarial accrued liability, adjusted for timing	1,450,018	1,660,172
3. Pa	yment on 1992 ERI, adjusted for timing	0	0
4. Pa	yment on 2002 ERI, adjusted for timing	21,900	21,900
5. Pa	yment on 2003 ERI, adjusted for timing	<u>57,753</u>	<u>57,753</u>
6. To	tal Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$1,954,596	\$2,181,747
7. To	tal Appropriation, payable on July 1	1,916,035	2,138,978

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Pepperell		(2200)
The valuation was made with respect to the following data supplied to us:		, ,
1. Retired participants as of the valuation date (including 4 beneficiaries in pay status)		29
2. Participants active during the year ended December 31, 2005		83
3. Inactive participants entitled to a return of their employee contributions		12
4. Inactive participants with a vested right to a deferred or immediate benefit		1
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$515,399
2. Expected employee contributions		-346,045
3. Employer normal cost: (1) + (2)		\$169,354
4. Actuarial accrued liability		13,093,328
Retired participants and beneficiaries	\$5,308,482	, ,
Active participants	7,702,192	
Inactive participants	82,653	
5. Actuarial value of assets		6,486,488
6. Unfunded actuarial accrued liability		6,606,840
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payro
Projected employer normal cost, adjusted for timing	\$176,165	4.42%
2. Projected unfunded actuarial accrued liability	6,873,971	
B. Payment on projected unfunded actuarial accrued liability, adjusted for timing	345,133	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$521,298	13.07%
8. Total FY07 Appropriation, payable on July 1	510,972	12.81%
9. Projected Payroll	3,989,193	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$183,212	\$190,540
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	438,753	502,343
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	_0	
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$621,965	\$692,883
7. Total Appropriation, payable on July 1	609,696	679,298

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Sherborn		(2300)
The valuation was made with respect to the following data supplied to us:		•
1. Retired participants as of the valuation date (including 3 beneficiaries in pay status)		28
2. Participants active during the year ended December 31, 2005		80
3. Inactive participants entitled to a return of their employee contributions		30
4. Inactive participants with a vested right to a deferred or immediate benefit		1
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$391,812
2. Expected employee contributions		-237,384
3. Employer normal cost: (1) + (2)		\$154,428
4. Actuarial accrued liability		9,022,221
Retired participants and beneficiaries	\$2,287,169	
Active participants	6,476,278	
Inactive participants	258,773	
5. Actuarial value of assets		4,576,220
6. Unfunded actuarial accrued liability		4,446,001
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$160,639	5.65%
2. Projected unfunded actuarial accrued liability	4,625,764	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	245,671	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$406,310	14.29%
8. Total FY07 Appropriation, payable on July 1	398,337	14.01%
9. Projected Payroll	2,843,812	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$167,065	\$173,748
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	294,371	337,035
3. Payment on 1992 ERI, adjusted for timing	0	0
4. Payment on 2002 ERI, adjusted for timing	0	C
5. Payment on 2003 ERI, adjusted for timing	_0	0
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$461,436	\$510,783
7. Total Appropriation, payable on July 1	452,333	500,761

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Shirley		(2400)
The valuation was made with respect to the following data supplied to us:		, ,
1. Retired participants as of the valuation date (including 3 beneficiaries in pay status)		31
2. Participants active during the year ended December 31, 2005		126
3. Inactive participants entitled to a return of their employee contributions		68
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$454,560
2. Expected employee contributions		-298,336
3. Employer normal cost: $(1) + (2)$		\$156,224
4. Actuarial accrued liability		9,980,058
Retired participants and beneficiaries	\$5,293,399	, ,
Active participants	4,540,093	
Inactive participants	146,565	
5. Actuarial value of assets	ŕ	4,656,690
6. Unfunded actuarial accrued liability		5,323,368
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$162,507	4.73%
2. Projected unfunded actuarial accrued liability	5,538,605	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	275,836	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	33,300	
6. Payment on 2003 ERI, adjusted for timing	<u>19,995</u>	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$491,638	14.31%
8. Total FY07 Appropriation, payable on July 1	481,900	14.03%
9. Projected Payroll	3,435,705	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$169,007	\$175,767
Payment on projected unfunded actuarial accrued liability, adjusted for timing	323,595	370,494
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	33,300	33,300
5. Payment on 2003 ERI, adjusted for timing	<u>19,995</u>	<u>19,995</u>
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$545,897	\$599,556
7. Total Appropriation, payable on July 1	535,141	587,803

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Stow		(2500)
The valuation was made with respect to the following data supplied to us:		,
1. Retired participants as of the valuation date (including 3 beneficiaries in pay status)		34
2. Participants active during the year ended December 31, 2005		53
3. Inactive participants entitled to a return of their employee contributions		13
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$300,529
2. Expected employee contributions		-206,170
3. Employer normal cost: (1) + (2)		\$94,359
4. Actuarial accrued liability		8,743,866
Retired participants and beneficiaries	\$3,599,074	
Active participants	5,009,197	
Inactive participants	135,594	
5. Actuarial value of assets		3,983,619
6. Unfunded actuarial accrued liability		4,760,247
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$98,154	4.11%
2. Projected unfunded actuarial accrued liability	4,952,715	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	268,454	
4. Payment on 1992 ERI, adjusted for timing	2,105	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$368,713	15.44%
8. Total FY07 Appropriation, payable on July 1	361,410	15.14%
9. Projected Payroll	2,387,434	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
 Projected employer normal cost, adjusted for timing 	\$102,080	\$106,163
Payment on projected unfunded actuarial accrued liability, adjusted for timing	314,327	359,883
3. Payment on 1992 ERI, adjusted for timing	2,105	2,105
4. Payment on 2002 ERI, adjusted for timing	0	C
5. Payment on 2003 ERI, adjusted for timing	_0	
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$418,512	\$468,151
7. Total Appropriation, payable on July 1	410,254	458,974

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Sudbury		(2600)
The valuation was made with respect to the following data supplied to us:		, ,
1. Retired participants as of the valuation date (including 13 beneficiaries in pay status)		151
2. Participants active during the year ended December 31, 2005		332
3. Inactive participants entitled to a return of their employee contributions		124
4. Inactive participants with a vested right to a deferred or immediate benefit		8
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$1,527,186
2. Expected employee contributions		-1,035,388
3. Employer normal cost: (1) + (2)		\$491,798
4. Actuarial accrued liability		51,685,404
Retired participants and beneficiaries	\$24,675,850	, ,
Active participants	25,697,978	
Inactive participants	1,311,575	
5. Actuarial value of assets		24,309,580
6. Unfunded actuarial accrued liability		27,375,824
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$511,576	4.20%
2. Projected unfunded actuarial accrued liability	28,482,700	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	1,527,745	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	26,600	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$2,065,921	16.97%
8. Total FY07 Appropriation, payable on July 1	2,024,999	16.63%
9. Projected Payroll	12,173,743	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$532,039	\$553,321
Payment on projected unfunded actuarial accrued liability, adjusted for timing	1,796,796	2,057,210
3. Payment on 1992 ERI, adjusted for timing	0	C
4. Payment on 2002 ERI, adjusted for timing	26,600	26,600
5. Payment on 2003 ERI, adjusted for timing	_0	
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$2,355,435	\$2,637,131
7. Total Appropriation, payable on July 1	2,308,957	2,585,433

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Tewksbury		(2700)
The valuation was made with respect to the following data supplied to us:		
Retired participants as of the valuation date (including 39 beneficiaries in pay status)		267
2. Participants active during the year ended December 31, 2005		408
3. Inactive participants entitled to a return of their employee contributions		68
4. Inactive participants with a vested right to a deferred or immediate benefit		2
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$2,221,785
2. Expected employee contributions		-1,511,666
3. Employer normal cost: $(1) + (2)$		\$710,119
4. Actuarial accrued liability		93,882,586
Retired participants and beneficiaries	\$55,355,676	
Active participants	38,033,851	
Inactive participants	493,059	
5. Actuarial value of assets		37,971,023
6. Unfunded actuarial accrued liability		55,911,563
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$738,677	4.24%
2. Projected unfunded actuarial accrued liability	58,172,215	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	2,748,525	
4. Payment on 1992 ERI, adjusted for timing	208,348	
5. Payment on 2002 ERI, adjusted for timing	231,400	
6. Payment on 2003 ERI, adjusted for timing	<u>354,926</u>	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$4,281,876	24.56%
8. Total FY07 Appropriation, payable on July 1	4,197,852	24.08%
9. Projected Payroll	17,433,643	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
 Projected employer normal cost, adjusted for timing 	\$768,224	\$798,953
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	3,341,464	3,825,749
3. Payment on 1992 ERI, adjusted for timing	208,348	208,348
4. Payment on 2002 ERI, adjusted for timing	231,400	231,400
5. Payment on 2003 ERI, adjusted for timing	<u>354,926</u>	<u>354,926</u>
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$4,904,362	\$5,419,376
7. Total Appropriation, payable on July 1	4,807,594	5,313,070

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Townsend		(2800)
The valuation was made with respect to the following data supplied to us:		, ,
Retired participants as of the valuation date (including 2 beneficiaries in pay status)		17
2. Participants active during the year ended December 31, 2005		71
3. Inactive participants entitled to a return of their employee contributions		18
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
I. Total normal cost		\$354,708
2. Expected employee contributions		-239,686
3. Employer normal cost: (1) + (2)		\$115,022
4. Actuarial accrued liability		8,210,151
Retired participants and beneficiaries	\$3,086,092	
Active participants	5,031,321	
Inactive participants	92,738	
5. Actuarial value of assets		3,826,291
5. Unfunded actuarial accrued liability		4,383,860
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$119,648	4.41%
2. Projected unfunded actuarial accrued liability	4,561,111	
B. Payment on projected unfunded actuarial accrued liability, adjusted for timing	230,861	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	20,400	
5. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$370,909	13.67%
3. Total FY07 Appropriation, payable on July 1	363,562	13.40%
Projected Payroll	2,713,563	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$124,434	\$129,411
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	279,674	320,208
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	20,400	20,400
5. Payment on 2003 ERI, adjusted for timing	_0	
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$424,508	\$470,019
7. Total Appropriation, payable on July 1	416,138	460,805

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SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Tyngsborough		(2900)
The valuation was made with respect to the following data supplied to us:		
1. Retired participants as of the valuation date (including 5 beneficiaries in pay status)		44
2. Participants active during the year ended December 31, 2005		187
3. Inactive participants entitled to a return of their employee contributions		73
4. Inactive participants with a vested right to a deferred or immediate benefit		1
The actuarial factors as of January 1, 2006 are as follows:		
Total normal cost		\$783,826
2. Expected employee contributions		-537,063
3. Employer normal cost: (1) + (2)		\$246,763
4. Actuarial accrued liability		17,850,702
Retired participants and beneficiaries	\$7,743,437	
Active participants	9,866,148	
Inactive participants	241,117	
5. Actuarial value of assets		8,477,492
6. Unfunded actuarial accrued liability		9,373,210
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$256,687	4.21%
2. Projected unfunded actuarial accrued liability	9,752,193	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	536,436	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
5. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$793,123	13.00%
3. Total FY07 Appropriation, payable on July 1	777,559	12.74%
Projected Payroll	6,101,539	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$266,954	\$277,632
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	619,385	709,154
B. Payment on 1992 ERI, adjusted for timing	0	0
4. Payment on 2002 ERI, adjusted for timing	0	0
5. Payment on 2003 ERI, adjusted for timing	_0	0
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$886,339	\$986,786
7. Total Appropriation, payable on July 1	868,849	967,430

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SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Wayland		(3000)
The valuation was made with respect to the following data supplied to us:		, ,
1. Retired participants as of the valuation date (including 17 beneficiaries in pay status)		191
2. Participants active during the year ended December 31, 2005		418
3. Inactive participants entitled to a return of their employee contributions		172
4. Inactive participants with a vested right to a deferred or immediate benefit		2
The actuarial factors as of January 1, 2006 are as follows:		
Total normal cost		\$1,797,028
2. Expected employee contributions		-1,244,545
B. Employer normal cost: (1) + (2)		\$552,483
4. Actuarial accrued liability		54,836,789
Retired participants and beneficiaries	\$28,175,876	, ,
Active participants	26,019,321	
Inactive participants	641,592	
5. Actuarial value of assets		25,570,731
5. Unfunded actuarial accrued liability		29,266,058
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$574,702	3.97%
2. Projected unfunded actuarial accrued liability	30,449,361	
B. Payment on projected unfunded actuarial accrued liability, adjusted for timing	1,718,485	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
5. Payment on 2003 ERI, adjusted for timing	<u>23,120</u>	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$2,316,307	16.02%
8. Total FY07 Appropriation, payable on July 1	2,270,854	15.70%
Projected Payroll	14,462,799	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$597,690	\$621,598
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	1,917,660	2,195,591
Payment on 1992 ERI, adjusted for timing	0	0
Payment on 2002 ERI, adjusted for timing	0	0
5. Payment on 2003 ERI, adjusted for timing	<u>23,120</u>	23,120
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$2,538,470	\$2,840,309
7. Total Appropriation, payable on July 1	2,488,353	2,784,594

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Town of Westford		(3100)
The valuation was made with respect to the following data supplied to us:		
1. Retired participants as of the valuation date (including 18 beneficiaries in pay status)		135
2. Participants active during the year ended December 31, 2005		465
3. Inactive participants entitled to a return of their employee contributions		146
4. Inactive participants with a vested right to a deferred or immediate benefit		2
The actuarial factors as of January 1, 2006 are as follows:		
Total normal cost		\$2,211,105
2. Expected employee contributions		-1,448,447
3. Employer normal cost: $(1) + (2)$		\$762,658
4. Actuarial accrued liability		42,978,882
Retired participants and beneficiaries	\$15,091,190	
Active participants	26,927,801	
Inactive participants	959,891	
5. Actuarial value of assets		20,761,324
6. Unfunded actuarial accrued liability		22,217,558
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$793,329	4.84%
2. Projected unfunded actuarial accrued liability	23,115,873	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	1,196,921	
4. Payment on 1992 ERI, adjusted for timing	5,607	
5. Payment on 2002 ERI, adjusted for timing	102,800	
6. Payment on 2003 ERI, adjusted for timing	<u>25,699</u>	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$2,124,356	12.96%
8. Total FY07 Appropriation, payable on July 1	2,082,670	12.70%
9. Projected Payroll	16,397,720	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$825,062	\$858,064
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	1,399,761	1,602,632
3. Payment on 1992 ERI, adjusted for timing	5,607	5,607
4. Payment on 2002 ERI, adjusted for timing	102,800	102,800
5. Payment on 2003 ERI, adjusted for timing	<u>25,699</u>	25,699
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$2,358,929	\$2,594,802
7. Total Appropriation, payable on July 1	2,312,418	2,543,900

SECTION 3: Supplemental Information for the Middlesex Retirement System

Sumn	nary of Actuarial Valuation Results for Town of Weston		(3200)
The v	aluation was made with respect to the following data supplied to us:		
. Re	etired participants as of the valuation date (including 25 beneficiaries in pay status)		199
	articipants active during the year ended December 31, 2005		414
	active participants entitled to a return of their employee contributions		176
4. In:	active participants with a vested right to a deferred or immediate benefit		5
	ctuarial factors as of January 1, 2006 are as follows:		
l. To	otal normal cost		\$2,023,211
2. Ex	spected employee contributions		-1,296,729
	mployer normal cost: $(1) + (2)$		\$726,482
	ctuarial accrued liability		55,649,871
	Retired participants and beneficiaries	\$27,851,060	
	Active participants	26,932,712	
	Inactive participants	866,099	
5. A	ctuarial value of assets		24,953,073
5. U1	nfunded actuarial accrued liability		30,696,798
The a	ctuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
1. Pr	ojected employer normal cost, adjusted for timing	\$755,698	4.89%
2. Pr	ojected unfunded actuarial accrued liability	31,937,951	
3. Pa	syment on projected unfunded actuarial accrued liability, adjusted for timing	1,698,178	
4. Pa	syment on 1992 ERI, adjusted for timing	0	
5. Pa	syment on 2002 ERI, adjusted for timing	0	
6. Pa	syment on 2003 ERI, adjusted for timing	_0	
7. To	otal FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$2,453,876	15.87%
8. To	otal FY07 Appropriation, payable on July 1	2,405,270	15.56%
9. Pr	ojected Payroll	15,460,000	
The a	ctuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
l. Pr	ojected employer normal cost, adjusted for timing	\$785,926	\$817,363
2. Pa	syment on projected unfunded actuarial accrued liability, adjusted for timing	2,032,314	2,326,862
3. Pa	syment on 1992 ERI, adjusted for timing	0	0
4. Pa	syment on 2002 ERI, adjusted for timing	0	0
	syment on 2003 ERI, adjusted for timing	_0	_0
6. To	otal Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$2,818,240	\$3,144,225
7. To	otal Appropriation, payable on July 1	2,762,647	3,082,584

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summ	ary of Actuarial Valuation Results for Town of Wilmington		(3300)
The va	luation was made with respect to the following data supplied to us:		,
	tired participants as of the valuation date (including 32 beneficiaries in pay status)		221
	ticipants active during the year ended December 31, 2005		384
	ctive participants entitled to a return of their employee contributions		78
	ctive participants with a vested right to a deferred or immediate benefit		1
The ac	tuarial factors as of January 1, 2006 are as follows:		
1. Tot	tal normal cost		\$2,078,445
2. Ex	pected employee contributions		-1,389,409
	polyer normal cost: $(1) + (2)$		\$689,036
	tuarial accrued liability		70,568,340
	Retired participants and beneficiaries	\$37,254,790	, ,
	Active participants	32,945,734	
	Inactive participants	367,816	
5. Ac	tuarial value of assets	·	32,381,225
6. Un	funded actuarial accrued liability		38,187,115
The ac	tuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
1. Pro	ojected employer normal cost, adjusted for timing	\$716,746	4.41%
	jected unfunded actuarial accrued liability	39,731,121	
3. Pay	ment on projected unfunded actuarial accrued liability, adjusted for timing	2,245,167	
4. Pay	yment on 1992 ERI, adjusted for timing	0	
5. Pay	yment on 2002 ERI, adjusted for timing	0	
6. Pay	yment on 2003 ERI, adjusted for timing	_0	
	tal FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$2,961,913	18.23%
	tal FY07 Appropriation, payable on July 1	2,903,244	17.87%
9. Pro	jected Payroll	16,247,883	
The ac	tuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
	pjected employer normal cost, adjusted for timing	\$745,416	\$775,233
2. Pay	yment on projected unfunded actuarial accrued liability, adjusted for timing	2,519,490	2,884,646
3. Pay	yment on 1992 ERI, adjusted for timing	0	C
4. Pay	yment on 2002 ERI, adjusted for timing	0	C
5. Pay	yment on 2003 ERI, adjusted for timing	_0	
6. To	tal Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$3,264,906	\$3,659,879
7. Tot	tal Appropriation, payable on July 1	3,200,477	3,588,132

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actua	rial Valuation Results for Acton-Boxborough RSD		(3400)
The valuation was i	nade with respect to the following data supplied to us:		
	s as of the valuation date (including 2 beneficiaries in pay status)		60
	during the year ended December 31, 2005		197
	s entitled to a return of their employee contributions		72
	s with a vested right to a deferred or immediate benefit		1
	s as of January 1, 2006 are as follows:		
 Total normal cost 			\$696,825
2. Expected employee	contributions		-445,939
3. Employer normal of			\$250,886
 Actuarial accrued l 			14,763,726
	pants and beneficiaries	\$6,494,486	
Active partici		8,002,740	
Inactive partic		266,500	
5. Actuarial value of			6,916,453
6. Unfunded actuarial	accrued liability		7,847,273
The actuarial factor	s projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
1. Projected employe	normal cost, adjusted for timing	\$260,976	4.99%
Projected unfunded	actuarial accrued liability	8,164,559	
	ed unfunded actuarial accrued liability, adjusted for timing	388,454	
4. Payment on 1992 I	ERI, adjusted for timing	0	
5. Payment on 2002 I	ERI, adjusted for timing	0	
Payment on 2003 I	ERI, adjusted for timing	_0	
7. Total FY07 Appro	oriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$649,430	12.42%
Total FY07 Appro	priation, payable on July 1	636,566	12.18%
9. Projected Payroll		5,227,408	
The actuarial factor	s projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
 Projected employe 	normal cost, adjusted for timing	\$271,415	\$282,272
Payment on projec	ed unfunded actuarial accrued liability, adjusted for timing	522,543	598,276
	ERI, adjusted for timing	0	C
4. Payment on 2002 I	ERI, adjusted for timing	0	C
5. Payment on 2003 I	ERI, adjusted for timing	_0	
6. Total Appropriatio	n: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$793,958	\$880,548
Total Appropriatio	n, payable on July 1	778,303	863,284

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Acton Water Supply		(3500)
The valuation was made with respect to the following data supplied to us:		
1. Retired participants as of the valuation date (including 1 beneficiaries in pay status)		5
2. Participants active during the year ended December 31, 2005		15
3. Inactive participants entitled to a return of their employee contributions		1
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
I. Total normal cost		\$76,211
2. Expected employee contributions		-72,125
B. Employer normal cost: (1) + (2)		\$4,086
4. Actuarial accrued liability		2,572,699
Retired participants and beneficiaries	\$617,758	, ,
Active participants	1,954,667	
Inactive participants	274	
5. Actuarial value of assets		1,523,337
6. Unfunded actuarial accrued liability		1,049,362
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$4,250	0.50%
2. Projected unfunded actuarial accrued liability	1,091,791	
B. Payment on projected unfunded actuarial accrued liability, adjusted for timing	84,180	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	<u>5,618</u>	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$94,048	11.12%
8. Total FY07 Appropriation, payable on July 1	92,185	10.90%
9. Projected Payroll	845,478	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$4,420	\$4,597
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	64,502	73,850
B. Payment on 1992 ERI, adjusted for timing	0	(
Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	<u>5,618</u>	<u>5,618</u>
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$74,540	\$84,065
7. Total Appropriation, payable on July 1	73,069	82,418

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Bedford Housing Authority	(3600)	
The valuation was made with respect to the following data supplied to us:		· · ·
1. Retired participants as of the valuation date (including 1 beneficiaries in pay status)		
2. Participants active during the year ended December 31, 2005		
3. Inactive participants entitled to a return of their employee contributions		(
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$12,51
2. Expected employee contributions		-9,29
3. Employer normal cost: (1) + (2)		\$3,214
4. Actuarial accrued liability		268,42
Retired participants and beneficiaries	\$207,092	,
Active participants	61,329	
Inactive participants	0	
5. Actuarial value of assets		123,848
6. Unfunded actuarial accrued liability		144,573
The actuarial factors projected to FY07 are as follows:	Amount	% of Payro
Projected employer normal cost, adjusted for timing	\$3,343	3.19%
2. Projected unfunded actuarial accrued liability	150,418	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	5,620	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	7,034	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$15,997	15.28%
3. Total FY07 Appropriation, payable on July 1	15,683	14.989
Projected Payroll	104,687	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$3,477	\$3,616
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	5,656	6,476
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	<u>7,034</u>	<u>7,034</u>
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$16,167	\$17,126
7. Total Appropriation, payable on July 1	15,849	16,790

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Billerica Housing Authority		(3700)
The valuation was made with respect to the following data supplied to us:		, ,
Retired participants as of the valuation date (including 1 beneficiaries in pay status)		4
2. Participants active during the year ended December 31, 2005		(
3. Inactive participants entitled to a return of their employee contributions		1
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
Total normal cost		\$26,451
2. Expected employee contributions		-20,332
3. Employer normal cost: (1) + (2)		\$6,119
4. Actuarial accrued liability		1,156,46
Retired participants and beneficiaries	\$861,449	, ,
Active participants	294,185	
Inactive participants	833	
5. Actuarial value of assets		464,488
5. Unfunded actuarial accrued liability		691,979
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$6,365	2.79%
2. Projected unfunded actuarial accrued liability	719,957	
B. Payment on projected unfunded actuarial accrued liability, adjusted for timing	34,524	
4. Payment on 1992 ERI, adjusted for timing	3,785	
5. Payment on 2002 ERI, adjusted for timing	9,900	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$54,574	23.88%
3. Total FY07 Appropriation, payable on July 1	53,503	23.41%
Projected Payroll	228,508	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$6,620	\$6,885
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	39,673	45,423
3. Payment on 1992 ERI, adjusted for timing	3,785	3,785
4. Payment on 2002 ERI, adjusted for timing	9,900	9,900
5. Payment on 2003 ERI, adjusted for timing	_0	(
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$59,978	\$65,993
7. Total Appropriation, payable on July 1	58,795	64,699

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SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Chelmsford Ho	(3800)	
The valuation was made with respect to the following data sup	olied to us:	
Retired participants as of the valuation date (including 0 beneficiaries in		3
2. Participants active during the year ended December 31, 2005		14
3. Inactive participants entitled to a return of their employee contributions		ϵ
4. Inactive participants with a vested right to a deferred or immediate bene	fit	(
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$74,761
2. Expected employee contributions		-57,943
3. Employer normal cost: $(1) + (2)$		\$16,818
4. Actuarial accrued liability		831,150
Retired participants and beneficiaries	\$237,679	,
Active participants	575,282	
Inactive participants	18,189	
5. Actuarial value of assets		467,306
6. Unfunded actuarial accrued liability		363,844
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$17,494	2.77%
2. Projected unfunded actuarial accrued liability	378,555	
3. Payment on projected unfunded actuarial accrued liability, adjusted for	iming 17,966	
4. Payment on 1992 ERI, adjusted for timing	2,359	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timin	g \$37,819	5.98%
8. Total FY07 Appropriation, payable on July 1	37,077	5.86%
9. Projected Payroll	632,529	
The actuarial factors projected to FY08 and FY09 are as follow	rs: <u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$18,194	\$18,922
2. Payment on projected unfunded actuarial accrued liability, adjusted for		27,109
3. Payment on 1992 ERI, adjusted for timing	2,359	2,359
4. Payment on 2002 ERI, adjusted for timing	0	0
5. Payment on 2003 ERI, adjusted for timing	_0	_0
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$44,230	\$48,390
7. Total Appropriation, payable on July 1	43,359	47,440

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Chelmsford Water District		(3900)
The valuation was made with respect to the following data supplied to us:		
1. Retired participants as of the valuation date (including 3 beneficiaries in pay status)		12
2. Participants active during the year ended December 31, 2005		19
3. Inactive participants entitled to a return of their employee contributions		1
4. Inactive participants with a vested right to a deferred or immediate benefit		
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$93,955
2. Expected employee contributions		-73,722
3. Employer normal cost: (1) + (2)		\$20,233
4. Actuarial accrued liability		3,470,031
Retired participants and beneficiaries	\$2,077,410	
Active participants	1,246,301	
Inactive participants	146,320	
5. Actuarial value of assets		1,648,864
5. Unfunded actuarial accrued liability		1,821,167
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payro
Projected employer normal cost, adjusted for timing	\$21,047	2.48%
2. Projected unfunded actuarial accrued liability	1,894,801	
B. Payment on projected unfunded actuarial accrued liability, adjusted for timing	89,339	
4. Payment on 1992 ERI, adjusted for timing	5,699	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$116,085	13.68%
3. Total FY07 Appropriation, payable on July 1	113,786	13.41%
Projected Payroll	848,370	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$21,889	\$22,765
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	119,986	137,376
3. Payment on 1992 ERI, adjusted for timing	5,699	5,699
Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	_0	(
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$147,574	\$165,840
7. Total Appropriation, payable on July 1	144,660	162,587

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Re	esults for Dracut Housing Authority		(4000)
The valuation was made with respect	to the following data supplied to us:		
	ate (including 0 beneficiaries in pay status)		
2. Participants active during the year ended			,
3. Inactive participants entitled to a return of	of their employee contributions		(
4. Inactive participants with a vested right	o a deferred or immediate benefit		(
The actuarial factors as of January 1,	2006 are as follows:		
Total normal cost			\$30,546
2. Expected employee contributions			-24,361
3. Employer normal cost: $(1) + (2)$			\$6,185
4. Actuarial accrued liability			771,618
Retired participants and beneficiario	es	\$171,407	
Active participants		600,211	
Inactive participants		0	
5. Actuarial value of assets			397,625
6. Unfunded actuarial accrued liability			373,993
The actuarial factors projected to FY	07 are as follows:	<u>Amount</u>	% of Payrol
1. Projected employer normal cost, adjusted	d for timing	\$6,434	2.27%
2. Projected unfunded actuarial accrued lia	pility	389,114	
3. Payment on projected unfunded actuaria	accrued liability, adjusted for timing	21,776	
4. Payment on 1992 ERI, adjusted for timin	ng	0	
5. Payment on 2002 ERI, adjusted for timin	ng	0	
6. Payment on 2003 ERI, adjusted for timin		0	
7. Total FY07 Appropriation: $(1) + (3) + (4)$		\$28,210	9.95%
8. Total FY07 Appropriation, payable on June 1981	ıly 1	27,656	9.75%
9. Projected Payroll		283,540	
The actuarial factors projected to FY	08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
1. Projected employer normal cost, adjusted	d for timing	\$6,691	\$6,959
2. Payment on projected unfunded actuaria	accrued liability, adjusted for timing	24,689	28,267
3. Payment on 1992 ERI, adjusted for timin		0	(
4. Payment on 2002 ERI, adjusted for timin		0	(
5. Payment on 2003 ERI, adjusted for timin		_0	(
6. Total Appropriation: $(1) + (2) + (3) + (4)$	+ (5), adjusted for timing	\$31,380	\$35,226
7. Total Appropriation, payable on July 1		30,760	34,534

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Dracut Water Supply		(4100)
The valuation was made with respect to the following data supplied to us:		, ,
1. Retired participants as of the valuation date (including 1 beneficiaries in pay status)		4
2. Participants active during the year ended December 31, 2005		1
3. Inactive participants entitled to a return of their employee contributions		
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
Total normal cost		\$58,294
2. Expected employee contributions		-49,973
B. Employer normal cost: (1) + (2)		\$8,32
4. Actuarial accrued liability		1,866,979
Retired participants and beneficiaries	\$864,342	, ,
Active participants	990,745	
Inactive participants	11,892	
5. Actuarial value of assets		923,066
5. Unfunded actuarial accrued liability		943,913
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payro
Projected employer normal cost, adjusted for timing	\$8,656	1.489
2. Projected unfunded actuarial accrued liability	982,078	
B. Payment on projected unfunded actuarial accrued liability, adjusted for timing	55,182	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$63,838	10.89%
8. Total FY07 Appropriation, payable on July 1	62,574	10.67%
9. Projected Payroll	586,238	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$9,002	\$9,362
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	62,298	71,327
B. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	_0	
		000 000
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$71,300	\$80,689

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for E. Chelmsford Water		(4200)
The valuation was made with respect to the following data supplied to us:		, ,
1. Retired participants as of the valuation date (including 2 beneficiaries in pay status)		
2. Participants active during the year ended December 31, 2005		
3. Inactive participants entitled to a return of their employee contributions		(
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$21,069
2. Expected employee contributions		-15,778
3. Employer normal cost: (1) + (2)		\$5,29
4. Actuarial accrued liability		265,820
Retired participants and beneficiaries	\$60,905	
Active participants	204,915	
Inactive participants	0	
5. Actuarial value of assets		126,335
6. Unfunded actuarial accrued liability		139,485
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payro
Projected employer normal cost, adjusted for timing	\$5,504	3.259
2. Projected unfunded actuarial accrued liability	145,125	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	7,393	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$12,897	7.62%
8. Total FY07 Appropriation, payable on July 1	12,642	7.479
9. Projected Payroll	169,211	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$5,724	\$5,953
Payment on projected unfunded actuarial accrued liability, adjusted for timing	9,256	10,598
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	_0	(
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$14,980	\$16,551
7. Total Appropriation, payable on July 1	14,685	16,226

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Va	uation Results for E. Middlesex Mosq Control		(4300)
The valuation was made wi	th respect to the following data supplied to us:		,
	valuation date (including 0 beneficiaries in pay status)		2
	e year ended December 31, 2005		(
	to a return of their employee contributions		(
	vested right to a deferred or immediate benefit		(
The actuarial factors as of J	anuary 1, 2006 are as follows:		
Total normal cost	•		\$30,189
Expected employee contribution	tions		-23,460
3. Employer normal cost: (1)			\$6,729
4. Actuarial accrued liability			671,186
Retired participants and	beneficiaries	\$140,927	, , ,
Active participants		530,259	
Inactive participants		0	
5. Actuarial value of assets			346,95
6. Unfunded actuarial accrued	liability		324,235
The actuarial factors project	ted to FY07 are as follows:	<u>Amount</u>	% of Payro
Projected employer normal	cost, adjusted for timing	\$7,000	2.52%
Projected unfunded actuaria		337,344	
3. Payment on projected unfun	ded actuarial accrued liability, adjusted for timing	19,781	
4. Payment on 1992 ERI, adjus		2,710	
5. Payment on 2002 ERI, adjust	ted for timing	0	
6. Payment on 2003 ERI, adjus	ted for timing	_0	
7. Total FY07 Appropriation: (1) + (3) + (4) + (5) + (6), adjusted for timing	\$29,491	10.62%
8. Total FY07 Appropriation, p	payable on July 1	28,912	10.41%
9. Projected Payroll		277,635	
The actuarial factors project	ted to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
1. Projected employer normal	cost, adjusted for timing	\$7,280	\$7,571
Payment on projected unfun	ded actuarial accrued liability, adjusted for timing	20,709	23,710
3. Payment on 1992 ERI, adjus	ted for timing	2,710	2,710
4. Payment on 2002 ERI, adjust	ted for timing	0	(
5. Payment on 2003 ERI, adjus		_0	(
6. Total Appropriation: (1) + (2)	(2) + (3) + (4) + (5), adjusted for timing	\$30,699	\$33,991
		30,092	33,323

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Greater Lowell RVTSD		(4400)
The valuation was made with respect to the following data supplied to us:		, ,
1. Retired participants as of the valuation date (including 10 beneficiaries in pay status)		76
2. Participants active during the year ended December 31, 2005		93
3. Inactive participants entitled to a return of their employee contributions		16
4. Inactive participants with a vested right to a deferred or immediate benefit		1
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$394,216
2. Expected employee contributions		-285,215
3. Employer normal cost: (1) + (2)		\$109,001
4. Actuarial accrued liability		15,639,240
Retired participants and beneficiaries	\$9,637,494	.,,
Active participants	5,845,951	
Inactive participants	155,795	
5. Actuarial value of assets	,	6,578,191
6. Unfunded actuarial accrued liability		9,061,049
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$113,385	3.31%
2. Projected unfunded actuarial accrued liability	9,427,411	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	421,897	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	167,100	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$702,382	20.50%
8. Total FY07 Appropriation, payable on July 1	688,599	20.10%
9. Projected Payroll	3,426,166	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$117,920	\$122,637
Payment on projected unfunded actuarial accrued liability, adjusted for timing	512,305	586,555
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	167,100	167,100
5. Payment on 2003 ERI, adjusted for timing	_0	
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$797,325	\$876,292
7. Total Appropriation, payable on July 1	781,598	859,102

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Groton-Dunstable RSD		(4500)
The valuation was made with respect to the following data supplied to us:		
1. Retired participants as of the valuation date (including 1 beneficiaries in pay status)		33
2. Participants active during the year ended December 31, 2005		164
3. Inactive participants entitled to a return of their employee contributions		57
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$540,730
2. Expected employee contributions		-363,590
3. Employer normal cost: (1) + (2)		\$177,140
4. Actuarial accrued liability		9,256,834
Retired participants and beneficiaries	\$3,030,688	
Active participants	6,022,225	
Inactive participants	203,921	
5. Actuarial value of assets		4,507,018
6. Unfunded actuarial accrued liability		4,749,816
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$184,264	4.38%
2. Projected unfunded actuarial accrued liability	4,941,863	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	211,667	
4. Payment on 1992 ERI, adjusted for timing	5,534	
5. Payment on 2002 ERI, adjusted for timing	4,100	
5. Payment on 2003 ERI, adjusted for timing	<u>15,562</u>	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$421,127	10.00%
3. Total FY07 Appropriation, payable on July 1	412,863	9.80%
Projected Payroll	4,211,487	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$191,635	\$199,300
Payment on projected unfunded actuarial accrued liability, adjusted for timing	305,244	349,484
3. Payment on 1992 ERI, adjusted for timing	5,534	5,534
4. Payment on 2002 ERI, adjusted for timing	4,100	4,100
5. Payment on 2003 ERI, adjusted for timing	<u>15,562</u>	<u>15,562</u>
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$522,075	\$573,980
7. Total Appropriation, payable on July 1	511,782	562,720

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Hudson Housing Authority		(4600)
The valuation was made with respect to the following data supplied to us:		, ,
Retired participants as of the valuation date (including 1 beneficiaries in pay status)		4
2. Participants active during the year ended December 31, 2005		
3. Inactive participants entitled to a return of their employee contributions		,
4. Inactive participants with a vested right to a deferred or immediate benefit		
The actuarial factors as of January 1, 2006 are as follows:		
Total normal cost		\$27,554
2. Expected employee contributions		-19,020
3. Employer normal cost: (1) + (2)		\$8,528
4. Actuarial accrued liability		1,132,452
Retired participants and beneficiaries	\$552,768	, ,
Active participants	534,547	
Inactive participants	45,137	
5. Actuarial value of assets		489,510
6. Unfunded actuarial accrued liability		642,942
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payro
Projected employer normal cost, adjusted for timing	\$8,871	3.76%
2. Projected unfunded actuarial accrued liability	668,938	
B. Payment on projected unfunded actuarial accrued liability, adjusted for timing	34,796	
4. Payment on 1992 ERI, adjusted for timing	2,036	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$45,703	19.38%
8. Total FY07 Appropriation, payable on July 1	44,806	19.00%
Projected Payroll	235,861	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$9,226	\$9,595
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	42,140	48,247
3. Payment on 1992 ERI, adjusted for timing	2,036	2,036
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	_0	
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$53,402	\$59,878
7. Total Appropriation, payable on July 1	52,347	58,704

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Result	s for Lincoln Sudbury		(4700)
The valuation was made with respect to th	e following data supplied to us:		
1. Retired participants as of the valuation date (in			42
2. Participants active during the year ended Dece			71
3. Inactive participants entitled to a return of their			38
4. Inactive participants with a vested right to a de			(
The actuarial factors as of January 1, 2006			
Total normal cost			\$286,474
2. Expected employee contributions			-220,986
3. Employer normal cost: $(1) + (2)$			\$65,488
4. Actuarial accrued liability			7,268,949
Retired participants and beneficiaries		\$3,485,620	, ,
Active participants		3,639,908	
Inactive participants		143,421	
5. Actuarial value of assets		,	3,415,598
6. Unfunded actuarial accrued liability			3,853,351
The actuarial factors projected to FY07 are	e as follows:	Amount	% of Payrol
1. Projected employer normal cost, adjusted for the	iming	\$68,122	2.71%
2. Projected unfunded actuarial accrued liability		4,009,152	
 Payment on projected unfunded actuarial accru 	ned liability, adjusted for timing	214,328	
4. Payment on 1992 ERI, adjusted for timing		0	
5. Payment on 2002 ERI, adjusted for timing		0	
6. Payment on 2003 ERI, adjusted for timing		_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5)$) + (6), adjusted for timing	\$282,450	11.22%
8. Total FY07 Appropriation, payable on July 1		276,855	11.00%
9. Projected Payroll		2,517,974	
The actuarial factors projected to FY08 an	d FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
1. Projected employer normal cost, adjusted for the	iming	\$70,847	\$73,681
2. Payment on projected unfunded actuarial accru	ned liability, adjusted for timing	255,039	292,002
3. Payment on 1992 ERI, adjusted for timing		0	C
4. Payment on 2002 ERI, adjusted for timing		0	C
5. Payment on 2003 ERI, adjusted for timing		_0	
		AAA = 00 =	Φ 2.55 502
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$325,886	\$365,683

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial	Valuation Results for Nashoba Vally THSD		(4900)
The valuation was made	with respect to the following data supplied to us:		,
	f the valuation date (including 1 beneficiaries in pay status)		18
	g the year ended December 31, 2005		22
	tled to a return of their employee contributions		g
4. Inactive participants wit	n a vested right to a deferred or immediate benefit		(
The actuarial factors as	of January 1, 2006 are as follows:		
Total normal cost	•		\$91,597
2. Expected employee con-	ributions		-65,835
3. Employer normal cost:			\$25,762
4. Actuarial accrued liabili			2,672,768
Retired participants	•	\$1,292,170	, ,
Active participants		1,349,716	
Inactive participant	S	30,882	
Actuarial value of assets			1,137,963
6. Unfunded actuarial accr	ned liability		1,534,805
The actuarial factors pro	jected to FY07 are as follows:	<u>Amount</u>	% of Payrol
	nal cost, adjusted for timing	\$26,798	3.42%
Projected unfunded actu		1,596,861	
	funded actuarial accrued liability, adjusted for timing	81,989	
4. Payment on 1992 ERI, a		0	
5. Payment on 2002 ERI, a		4,900	
6. Payment on 2003 ERI, a	djusted for timing	_0	
7. Total FY07 Appropriation	on: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$113,687	14.50%
8. Total FY07 Appropriation	on, payable on July 1	111,456	14.22%
Projected Payroll		784,008	
The actuarial factors pro	jected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer norn	nal cost, adjusted for timing	\$27,870	\$28,985
	funded actuarial accrued liability, adjusted for timing	99,084	113,444
3. Payment on 1992 ERI, a	djusted for timing	0	0
4. Payment on 2002 ERI, a	djusted for timing	4,900	4,900
5. Payment on 2003 ERI, a	djusted for timing	_0	0
	+(2) + (3) + (4) + (5), adjusted for timing	\$131,854	\$147,329
7. Total Appropriation, pay		129,251	144,439

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for N. Chelmsford Water		(5000)
The valuation was made with respect to the following data supplied to us:		, ,
1. Retired participants as of the valuation date (including 1 beneficiaries in pay status)		
2. Participants active during the year ended December 31, 2005		•
3. Inactive participants entitled to a return of their employee contributions		(
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$27,020
2. Expected employee contributions		-26,113
3. Employer normal cost: $(1) + (2)$		\$ 907
4. Actuarial accrued liability		995,638
Retired participants and beneficiaries	\$91,265	,
Active participants	904,373	
Inactive participants	0	
5. Actuarial value of assets		808,999
6. Unfunded actuarial accrued liability		186,639
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payro
Projected employer normal cost, adjusted for timing	\$ 943	0.30%
2. Projected unfunded actuarial accrued liability	194,185	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	27,968	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$28,911	9.15%
8. Total FY07 Appropriation, payable on July 1	28,344	8.989
9. Projected Payroll	315,804	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$ 981	\$1,020
Payment on projected unfunded actuarial accrued liability, adjusted for timing	11,195	12,818
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	_0	
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$12,176	\$13,838
7. Total Appropriation, payable on July 1	11,936	13,567

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for North Middlesex RSD		(5100)
The valuation was made with respect to the following data supplied to us:		
1. Retired participants as of the valuation date (including 3 beneficiaries in pay status)		62
2. Participants active during the year ended December 31, 2005		176
3. Inactive participants entitled to a return of their employee contributions		93
4. Inactive participants with a vested right to a deferred or immediate benefit		
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$487,268
2. Expected employee contributions		-304,413
3. Employer normal cost: (1) + (2)		\$182,855
4. Actuarial accrued liability		11,191,625
Retired participants and beneficiaries	\$4,289,654	
Active participants	6,582,526	
Inactive participants	319,445	
5. Actuarial value of assets		5,012,238
6. Unfunded actuarial accrued liability		6,179,387
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$190,209	5.19%
2. Projected unfunded actuarial accrued liability	6,429,236	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	321,978	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	23,400	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$535,587	14.62%
8. Total FY07 Appropriation, payable on July 1	525,077	14.33%
9. Projected Payroll	3,664,156	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$197,817	\$205,730
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	397,423	455,023
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	23,400	23,400
5. Payment on 2003 ERI, adjusted for timing	_0	
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$618,640	\$684,153
7. Total Appropriation, payable on July 1	606,438	670,731

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for North Middlesex Welfare District		(5200)
The valuation was made with respect to the following data supplied to us:		
. Retired participants as of the valuation date (including 0 beneficiaries in pay status)		1
2. Participants active during the year ended December 31, 2005		C
3. Inactive participants entitled to a return of their employee contributions		C
Inactive participants with a vested right to a deferred or immediate benefit		0
The actuarial factors as of January 1, 2006 are as follows:		
. Total normal cost		\$ 0
2. Expected employee contributions		- C
3. Employer normal cost: (1) + (2)		\$ 0
4. Actuarial accrued liability		18,443
Retired participants and beneficiaries	\$18,443	,
Active participants	0	
Inactive participants	0	
5. Actuarial value of assets		18,443
6. Unfunded actuarial accrued liability		C
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$ 0	0.00%
2. Projected unfunded actuarial accrued liability	0	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	0	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$ 0	0.00%
8. Total FY07 Appropriation, payable on July 1	0	0.00%
Projected Payroll	0	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$ 0	\$ 0
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	0	0
3. Payment on 1992 ERI, adjusted for timing	0	0
Payment on 2002 ERI, adjusted for timing	0	0
5. Payment on 2003 ERI, adjusted for timing	_0	0
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$ 0	\$ 0
7. Total Appropriation, payable on July 1	0	0

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Shawsheen Valley RVS		(5300)
The valuation was made with respect to the following data supplied to us:		
. Retired participants as of the valuation date (including 4 beneficiaries in pay status)		39
2. Participants active during the year ended December 31, 2005		54
3. Inactive participants entitled to a return of their employee contributions		12
4. Inactive participants with a vested right to a deferred or immediate benefit		1
The actuarial factors as of January 1, 2006 are as follows:		
Total normal cost		\$226,007
2. Expected employee contributions		-180,859
3. Employer normal cost: (1) + (2)		\$45,148
4. Actuarial accrued liability		7,625,884
Retired participants and beneficiaries	\$4,309,944	
Active participants	3,239,363	
Inactive participants	76,577	
5. Actuarial value of assets		3,369,092
6. Unfunded actuarial accrued liability		4,256,792
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$46,964	2.33%
2. Projected unfunded actuarial accrued liability	4,428,905	
Payment on projected unfunded actuarial accrued liability, adjusted for timing	240,816	
4. Payment on 1992 ERI, adjusted for timing	8,218	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	<u>17,655</u>	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$313,653	15.55%
8. Total FY07 Appropriation, payable on July 1	307,440	15.24%
9. Projected Payroll	2,017,232	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$48,843	\$50,797
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	269,325	308,359
3. Payment on 1992 ERI, adjusted for timing	8,218	8,218
4. Payment on 2002 ERI, adjusted for timing	0	C
5. Payment on 2003 ERI, adjusted for timing	<u>17,655</u>	17,655
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$344,041	\$385,029
7. Total Appropriation, payable on July 1	337,251	377,481

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for South Middlesex RVTS		(5400)
The valuation was made with respect to the following data supplied to us:		, ,
1. Retired participants as of the valuation date (including 5 beneficiaries in pay status)		39
2. Participants active during the year ended December 31, 2005		4:
3. Inactive participants entitled to a return of their employee contributions		1
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
I. Total normal cost		\$205,568
2. Expected employee contributions		-135,102
3. Employer normal cost: (1) + (2)		\$70,460
Actuarial accrued liability		6,382,76
Retired participants and beneficiaries	\$2,823,227	, ,
Active participants	3,478,230	
Inactive participants	81,306	
5. Actuarial value of assets		3,058,152
5. Unfunded actuarial accrued liability		3,324,61
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payro
Projected employer normal cost, adjusted for timing	\$73,300	4.629
2. Projected unfunded actuarial accrued liability	3,459,034	
B. Payment on projected unfunded actuarial accrued liability, adjusted for timing	205,345	
Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
5. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$278,645	17.55%
3. Total FY07 Appropriation, payable on July 1	273,177	17.219
Projected Payroll	1,587,390	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
. Projected employer normal cost, adjusted for timing	\$76,232	\$79,283
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	218,699	250,390
Payment on 1992 ERI, adjusted for timing	0	(
Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	_0	(
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$294,931	\$329,677
7. Total Appropriation, payable on July 1	289,109	323,210

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Sudbury Water District		(5500)
The valuation was made with respect to the following data supplied to us:		,
. Retired participants as of the valuation date (including 1 beneficiaries in pay status)		4
2. Participants active during the year ended December 31, 2005		Ç
3. Inactive participants entitled to a return of their employee contributions		1
Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
. Total normal cost		\$54,907
2. Expected employee contributions		-53,362
Employer normal cost: $(1) + (2)$		\$1,54
Actuarial accrued liability		1,417,80
Retired participants and beneficiaries	\$310,636	
Active participants	1,106,375	
Inactive participants	790	
6. Actuarial value of assets		651,372
5. Unfunded actuarial accrued liability		766,429
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payro
. Projected employer normal cost, adjusted for timing	\$1,607	0.26%
. Projected unfunded actuarial accrued liability	797,418	
Payment on projected unfunded actuarial accrued liability, adjusted for timing	36,076	
Payment on 1992 ERI, adjusted for timing	0	
Payment on 2002 ERI, adjusted for timing	0	
5. Payment on 2003 ERI, adjusted for timing	_0	
Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$37,683	6.09%
3. Total FY07 Appropriation, payable on July 1	36,944	5.97%
Projected Payroll	619,182	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
. Projected employer normal cost, adjusted for timing	\$1,671	\$1,738
. Payment on projected unfunded actuarial accrued liability, adjusted for timing	51,158	58,573
. Payment on 1992 ERI, adjusted for timing	0	(
Payment on 2002 ERI, adjusted for timing	0	(
. Payment on 2003 ERI, adjusted for timing	_0	(
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$52,829	\$60,311
7. Total Appropriation, payable on July 1	51,785	59,129

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Tewksbury Housing Authority		(5600)
The valuation was made with respect to the following data supplied to us:		<u> </u>
1. Retired participants as of the valuation date (including 1 beneficiaries in pay status)		4
2. Participants active during the year ended December 31, 2005		8
3. Inactive participants entitled to a return of their employee contributions]
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$44,807
2. Expected employee contributions		-32,388
3. Employer normal cost: (1) + (2)		\$12,419
4. Actuarial accrued liability		1,127,548
Retired participants and beneficiaries	\$509,525	, ,
Active participants	616,658	
Inactive participants	1,365	
5. Actuarial value of assets		555,961
6. Unfunded actuarial accrued liability		571,587
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$12,918	3.56%
2. Projected unfunded actuarial accrued liability	594,698	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	35,188	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	3,500	
6. Payment on 2003 ERI, adjusted for timing	<u>5,640</u>	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$57,246	15.77%
8. Total FY07 Appropriation, payable on July 1	56,122	15.46%
9. Projected Payroll	362,951	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$13,435	\$13,972
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	32,399	37,094
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	3,500	3,500
5. Payment on 2003 ERI, adjusted for timing	<u>5,640</u>	<u>5,640</u>
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$54,974	\$60,206
7. Total Appropriation, payable on July 1	53,890	59,026

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Wayland Housing Authority		(5700)
The valuation was made with respect to the following data supplied to us:		,
1. Retired participants as of the valuation date (including 0 beneficiaries in pay status)		1
2. Participants active during the year ended December 31, 2005		4
3. Inactive participants entitled to a return of their employee contributions		3
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$22,605
2. Expected employee contributions		-20,872
3. Employer normal cost: $(1) + (2)$		\$1,733
4. Actuarial accrued liability		539.647
Retired participants and beneficiaries	\$102,696	
Active participants	427,784	
Inactive participants	9,167	
5. Actuarial value of assets	, and the second	289,111
6. Unfunded actuarial accrued liability		250,536
The actuarial factors projected to FY07 are as follows:	Amount	% of Payro
Projected employer normal cost, adjusted for timing	\$1,803	0.78%
2. Projected unfunded actuarial accrued liability	260,665	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	17,953	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$19,756	8.51%
8. Total FY07 Appropriation, payable on July 1	19,368	8.34%
9. Projected Payroll	232,250	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$1,875	\$1,950
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	16,318	18,682
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	_0	
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$18,193	\$20,632
7. Total Appropriation, payable on July 1	17,833	20,228

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Hopkinton Housing Authority		(5800)
The valuation was made with respect to the following data supplied to us:		,
1. Retired participants as of the valuation date (including 0 beneficiaries in pay status)		(
2. Participants active during the year ended December 31, 2005		3
3. Inactive participants entitled to a return of their employee contributions]
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$10,679
2. Expected employee contributions		-8,836
3. Employer normal cost: (1) + (2)		\$1,843
4. Actuarial accrued liability		302,349
Retired participants and beneficiaries	\$0	,
Active participants	291,120	
Inactive participants	11,229	
5. Actuarial value of assets		175,696
6. Unfunded actuarial accrued liability		126,653
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$1,917	1.82%
2. Projected unfunded actuarial accrued liability	131,773	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	8,031	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$9,948	9.44%
8. Total FY07 Appropriation, payable on July 1	9,753	9.25%
9. Projected Payroll	105,395	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$1,994	\$2,074
Payment on projected unfunded actuarial accrued liability, adjusted for timing	8,318	9,523
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	0	(
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$10,312	\$11,597
7. Total Appropriation, payable on July 1	10,107	11,368

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for S. Chelmsford Water District		(5900)
The valuation was made with respect to the following data supplied to us:		•
1. Retired participants as of the valuation date (including 0 beneficiaries in pay status)		1
2. Participants active during the year ended December 31, 2005		(
3. Inactive participants entitled to a return of their employee contributions		(
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$ (
2. Expected employee contributions		- (
3. Employer normal cost: (1) + (2)		\$ (
4. Actuarial accrued liability		8,389
Retired participants and beneficiaries	\$8,389	
Active participants	0	
Inactive participants	0	
5. Actuarial value of assets		8,389
6. Unfunded actuarial accrued liability		(
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$ 0	0.00%
2. Projected unfunded actuarial accrued liability	0	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	0	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$ 0	0.00%
8. Total FY07 Appropriation, payable on July 1	0	0.00%
9. Projected Payroll	0	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$ 0	\$ (
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	0	(
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	_0	(
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$ 0	\$ 0
7. Total Appropriation, payable on July 1	0	(

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary	of Actuarial Valuation Results for Sudbury Housing Authority		(6000)
The valuat	tion was made with respect to the following data supplied to us:		
1. Retired	participants as of the valuation date (including 0 beneficiaries in pay status)		2
	ants active during the year ended December 31, 2005		3
3. Inactive	e participants entitled to a return of their employee contributions		C
4. Inactive	e participants with a vested right to a deferred or immediate benefit		(
The actuar	ial factors as of January 1, 2006 are as follows:		
1. Total no	ormal cost		\$15,230
2. Expecte	ed employee contributions		-7,947
	ver normal cost: $(1) + (2)$		\$7,283
	al accrued liability		440,382
	tired participants and beneficiaries	\$75,752	,
	tive participants	364,630	
	active participants	0	
	al value of assets		235,177
6. Unfund	ed actuarial accrued liability		205,205
The actuar	rial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
1. Projecte	ed employer normal cost, adjusted for timing	\$7,576	7.59%
	ed unfunded actuarial accrued liability	213,502	
	nt on projected unfunded actuarial accrued liability, adjusted for timing	12,774	
Paymer	nt on 1992 ERI, adjusted for timing	0	
Paymer	at on 2002 ERI, adjusted for timing	0	
Paymer	at on 2003 ERI, adjusted for timing	_0	
7. Total F	Y07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$20,350	20.40%
8. Total F	Y07 Appropriation, payable on July 1	19,951	20.00%
9. Projecto	ed Payroll	99,766	
The actuar	rial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
1. Projecte	ed employer normal cost, adjusted for timing	\$7,879	\$8,194
Paymer	at on projected unfunded actuarial accrued liability, adjusted for timing	13,492	15,448
Paymer	nt on 1992 ERI, adjusted for timing	0	0
	at on 2002 ERI, adjusted for timing	0	0
	at on 2003 ERI, adjusted for timing	_0	0
6. Total A	ppropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$21,371	\$23,642
7. Total A	ppropriation, payable on July 1	20,949	23,178

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Wilmington Housing Authority		(6100)
The valuation was made with respect to the following data supplied to us:		, ,
1. Retired participants as of the valuation date (including 0 beneficiaries in pay status)		3
2. Participants active during the year ended December 31, 2005		3
3. Inactive participants entitled to a return of their employee contributions		(
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
Total normal cost		\$11,081
2. Expected employee contributions		-8,182
3. Employer normal cost: (1) + (2)		\$2,899
4. Actuarial accrued liability		310,428
Retired participants and beneficiaries	\$161,979	,
Active participants	148,449	
Inactive participants	0	
5. Actuarial value of assets		138,845
6. Unfunded actuarial accrued liability		171,583
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payro
Projected employer normal cost, adjusted for timing	\$3,016	3.08%
2. Projected unfunded actuarial accrued liability	178,521	
Payment on projected unfunded actuarial accrued liability, adjusted for timing	6,750	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
5. Payment on 2003 ERI, adjusted for timing	<u>3,611</u>	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$13,377	13.67%
3. Total FY07 Appropriation, payable on July 1	13,115	13.41%
Projected Payroll	97,832	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$3,137	\$3,262
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	9,449	10,819
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	<u>3,611</u>	<u>3,611</u>
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$16,197	\$17,692
7. Total Appropriation, payable on July 1	15,877	17,345

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of	of Actuarial Valuation Results for Acton Housing Authority		(6200)
The valuati	on was made with respect to the following data supplied to us:		
. Retired p	articipants as of the valuation date (including 0 beneficiaries in pay status)		2
2. Participa	nts active during the year ended December 31, 2005		5
3. Inactive	participants entitled to a return of their employee contributions		C
4. Inactive	participants with a vested right to a deferred or immediate benefit		(
The actuari	al factors as of January 1, 2006 are as follows:		
1. Total nor	mal cost		\$29,566
2. Expected	employee contributions		<u>-19,807</u>
	r normal cost: $(1) + (2)$		\$9,759
	accrued liability		736,069
	red participants and beneficiaries	\$487,378	
	ve participants	248,691	
Inac	tive participants	0	
5. Actuarial	value of assets		366,676
6. Unfunde	d actuarial accrued liability		369,393
The actuari	al factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
1. Projected	employer normal cost, adjusted for timing	\$10,151	4.72%
2. Projected	unfunded actuarial accrued liability	384,328	
3. Payment	on projected unfunded actuarial accrued liability, adjusted for timing	21,674	
4. Payment	on 1992 ERI, adjusted for timing	0	
5. Payment	on 2002 ERI, adjusted for timing	0	
	on 2003 ERI, adjusted for timing	_0	
	07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$31,825	14.79%
	07 Appropriation, payable on July 1	31,200	14.50%
9. Projected	Payroll	215,199	
The actuari	al factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
1. Projected	employer normal cost, adjusted for timing	\$10,557	\$10,979
	on projected unfunded actuarial accrued liability, adjusted for timing	24,374	27,907
	on 1992 ERI, adjusted for timing	0	0
	on 2002 ERI, adjusted for timing	0	C
	on 2003 ERI, adjusted for timing	_0	
	propriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$34,931	\$38,886
7. Total Ap	propriation, payable on July 1	34,242	38,124

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Burlington Housing Authority		(6300)
The valuation was made with respect to the following data supplied to us:		, ,
Retired participants as of the valuation date (including 0 beneficiaries in pay status)		(
2. Participants active during the year ended December 31, 2005		4
3. Inactive participants entitled to a return of their employee contributions		1
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$19,268
2. Expected employee contributions		-13,481
3. Employer normal cost: (1) + (2)		\$5,787
4. Actuarial accrued liability		193,202
Retired participants and beneficiaries	\$0	
Active participants	192,869	
Inactive participants	333	
5. Actuarial value of assets		201,225
6. Unfunded actuarial accrued liability		-8,023
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$6,020	4.02%
2. Projected unfunded actuarial accrued liability	-8,348	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	12,549	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$18,569	12.39%
8. Total FY07 Appropriation, payable on July 1	18,205	12.15%
9. Projected Payroll	149,844	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$6,261	\$6,511
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	-1,386	-1,587
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	_0	(
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$4,875	\$4,924
7. Total Appropriation, payable on July 1	4,779	4,828

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SECTION 3: Supplemental Information for the Middlesex Retirement System

Sun	nmary of Actuarial Valuation Results for Ayer Housing Authority		(6400)
The	valuation was made with respect to the following data supplied to us:		
l.	Retired participants as of the valuation date (including 0 beneficiaries in pay status)		1
2.	Participants active during the year ended December 31, 2005		4
3.	Inactive participants entitled to a return of their employee contributions		(
4.	Inactive participants with a vested right to a deferred or immediate benefit		(
The	actuarial factors as of January 1, 2006 are as follows:		
1.	Total normal cost		\$11,631
2.	Expected employee contributions		-11,052
3.	Employer normal cost: $(1) + (2)$		\$ 579
	Actuarial accrued liability		309,195
	Retired participants and beneficiaries	\$134,400	
	Active participants	174,795	
	Inactive participants	0	
5.	Actuarial value of assets		129,245
6.	Unfunded actuarial accrued liability		179,950
The	actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
1.	Projected employer normal cost, adjusted for timing	\$ 602	0.46%
2.	Projected unfunded actuarial accrued liability	187,226	
3.	Payment on projected unfunded actuarial accrued liability, adjusted for timing	8,081	
4.	Payment on 1992 ERI, adjusted for timing	0	
5.	Payment on 2002 ERI, adjusted for timing	3,600	
6.	Payment on 2003 ERI, adjusted for timing	_0	
7.	Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$12,283	9.46%
	Total FY07 Appropriation, payable on July 1	12,042	9.28%
9.	Projected Payroll	129,823	
	actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
	Projected employer normal cost, adjusted for timing	\$ 626	\$ 651
	Payment on projected unfunded actuarial accrued liability, adjusted for timing	10,038	11,492
	Payment on 1992 ERI, adjusted for timing	0	(
4.	Payment on 2002 ERI, adjusted for timing	3,600	3,600
	Payment on 2003 ERI, adjusted for timing	_0	
	Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$14,264	\$15,743
7.	Total Appropriation, payable on July 1	13,982	15,435

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Holliston Housing Authority		(6500)
The valuation was made with respect to the following data supplied to us:		, ,
1. Retired participants as of the valuation date (including 0 beneficiaries in pay status)]
2. Participants active during the year ended December 31, 2005		3
3. Inactive participants entitled to a return of their employee contributions		(
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
Total normal cost		\$12,348
2. Expected employee contributions		-10,404
3. Employer normal cost: (1) + (2)		\$1,944
4. Actuarial accrued liability		161,255
Retired participants and beneficiaries	\$110,795	,
Active participants	50,460	
Inactive participants	0	
5. Actuarial value of assets		101,52
6. Unfunded actuarial accrued liability		59,734
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payro
Projected employer normal cost, adjusted for timing	\$2,022	1.81%
2. Projected unfunded actuarial accrued liability	62,149	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	7,365	
4. Payment on 1992 ERI, adjusted for timing	1,122	
5. Payment on 2002 ERI, adjusted for timing	0	
5. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$10,509	9.43%
3. Total FY07 Appropriation, payable on July 1	10,303	9.25%
Projected Payroll	111,415	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$2,103	\$2,187
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	3,424	3,920
3. Payment on 1992 ERI, adjusted for timing	1,122	1,122
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	_0	
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$6,649	\$7,229
7. Total Appropriation, payable on July 1	6,517	7,087

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Littleton Housing Authority		(6600)
The valuation was made with respect to the following data supplied to us:		, ,
Retired participants as of the valuation date (including 0 beneficiaries in pay status)		
2. Participants active during the year ended December 31, 2005		
3. Inactive participants entitled to a return of their employee contributions		(
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
Total normal cost		\$8,886
2. Expected employee contributions		<u>-6,933</u>
3. Employer normal cost: (1) + (2)		\$1,953
Actuarial accrued liability		333,647
Retired participants and beneficiaries	\$179,426	,
Active participants	154,221	
Inactive participants	0	
5. Actuarial value of assets		150,742
5. Unfunded actuarial accrued liability		182,905
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payro
Projected employer normal cost, adjusted for timing	\$2,032	2.56%
2. Projected unfunded actuarial accrued liability	190,301	
B. Payment on projected unfunded actuarial accrued liability, adjusted for timing	9,484	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	4,900	
5. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$16,416	20.66%
8. Total FY07 Appropriation, payable on July 1	16,094	20.269
Projected Payroll	79,456	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$2,113	\$2,198
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	9,430	10,796
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	4,900	4,900
5. Payment on 2003 ERI, adjusted for timing	_0	(
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$16,443	\$17,894
7. Total Appropriation, payable on July 1	16,119	17,543

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Westford Housing Authority		(6700)
The valuation was made with respect to the following data supplied to us:		•
Retired participants as of the valuation date (including 0 beneficiaries in pay status)]
2. Participants active during the year ended December 31, 2005		3
3. Inactive participants entitled to a return of their employee contributions		(
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
I. Total normal cost		\$13,182
2. Expected employee contributions		-7,939
3. Employer normal cost: (1) + (2)		\$5,243
4. Actuarial accrued liability		319,294
Retired participants and beneficiaries	\$171,221	,
Active participants	148,073	
Inactive participants	0	
5. Actuarial value of assets		129,918
5. Unfunded actuarial accrued liability		189,370
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$5,454	6.05%
2. Projected unfunded actuarial accrued liability	197,033	
B. Payment on projected unfunded actuarial accrued liability, adjusted for timing	7,648	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	6,900	
5. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$20,002	22.20%
3. Total FY07 Appropriation, payable on July 1	19,609	21.76%
Projected Payroll	90,099	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$5,672	\$5,899
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	8,891	10,180
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	6,900	6,900
5. Payment on 2003 ERI, adjusted for timing	_0	
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$21,463	\$22,979
7. Total Appropriation, payable on July 1	21,041	22,528

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Shirley Water District		(6800)
The valuation was made with respect to the following data supplied to us:		, ,
1. Retired participants as of the valuation date (including 1 beneficiaries in pay status)		
2. Participants active during the year ended December 31, 2005		
3. Inactive participants entitled to a return of their employee contributions		(
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
Total normal cost		\$12,450
2. Expected employee contributions		-13,684
B. Employer normal cost: (1) + (2)		\$-1,234
4. Actuarial accrued liability		261,332
Retired participants and beneficiaries	\$47,921	,
Active participants	213,411	
Inactive participants	0	
5. Actuarial value of assets		130,942
6. Unfunded actuarial accrued liability		130,390
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payro
Projected employer normal cost, adjusted for timing	\$-1,284	- 0.85%
2. Projected unfunded actuarial accrued liability	135,662	
B. Payment on projected unfunded actuarial accrued liability, adjusted for timing	7,188	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
5. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$5,904	3.89%
3. Total FY07 Appropriation, payable on July 1	5,787	3.819
Projected Payroll	151,846	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$-1,335	\$-1,388
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	8,634	9,886
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	_0	
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$7,299	\$8,498
7. Total Appropriation, payable on July 1	7,156	8,332

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Tyngsboro Housing Authority		(6900)
The valuation was made with respect to the following data supplied to us:		,
1. Retired participants as of the valuation date (including 0 beneficiaries in pay status)		
2. Participants active during the year ended December 31, 2005		
3. Inactive participants entitled to a return of their employee contributions		,
4. Inactive participants with a vested right to a deferred or immediate benefit		,
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$9,108
2. Expected employee contributions		-7,93
3. Employer normal cost: (1) + (2)		\$1,17
4. Actuarial accrued liability		361,329
Retired participants and beneficiaries	\$183,421	,
Active participants	151,847	
Inactive participants	26,061	
5. Actuarial value of assets	•	147,29
6. Unfunded actuarial accrued liability		214,032
The actuarial factors projected to FY07 are as follows:	Amount	% of Payro
Projected employer normal cost, adjusted for timing	\$1,218	1.349
2. Projected unfunded actuarial accrued liability	222,686	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	11,592	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	4,400	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$17,210	18.90%
8. Total FY07 Appropriation, payable on July 1	16,872	18.53%
Projected Payroll	91,062	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$1,267	\$1,318
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	11,743	13,445
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	4,400	4,400
5. Payment on 2003 ERI, adjusted for timing	_0	
6. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$17,410	\$19,163
7. Total Appropriation, payable on July 1	17,066	18,787

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Pepperell Housing Authority		(7000)
The valuation was made with respect to the following data supplied to us:		, ,
1. Retired participants as of the valuation date (including 0 beneficiaries in pay status)		(
2. Participants active during the year ended December 31, 2005		
3. Inactive participants entitled to a return of their employee contributions		(
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$5,924
2. Expected employee contributions		-3,42
3. Employer normal cost: (1) + (2)		\$2,503
4. Actuarial accrued liability		79,189
Retired participants and beneficiaries	\$0	
Active participants	79,189	
Inactive participants	0	
5. Actuarial value of assets		52,47
6. Unfunded actuarial accrued liability		26,718
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payro
Projected employer normal cost, adjusted for timing	\$2,604	5.97%
2. Projected unfunded actuarial accrued liability	27,798	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	2,303	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$4,907	11.25%
8. Total FY07 Appropriation, payable on July 1	4,811	11.039
9. Projected Payroll	43,614	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$2,708	\$2,816
Payment on projected unfunded actuarial accrued liability, adjusted for timing	1,715	1,963
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	_0	(
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$4,423	\$4,779
7. Total Appropriation, payable on July 1	4,336	4,686

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Groton Housing Authority		(7100)
The valuation was made with respect to the following data supplied to us:		, ,
1. Retired participants as of the valuation date (including 0 beneficiaries in pay status)		(
2. Participants active during the year ended December 31, 2005		
3. Inactive participants entitled to a return of their employee contributions		(
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
Total normal cost		\$3,492
2. Expected employee contributions		<u>-1,41</u> 4
3. Employer normal cost: (1) + (2)		\$2,078
4. Actuarial accrued liability		17,623
Retired participants and beneficiaries	\$0	,
Active participants	17,623	
Inactive participants	0	
5. Actuarial value of assets		14,730
6. Unfunded actuarial accrued liability		2,893
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payro
Projected employer normal cost, adjusted for timing	\$2,162	12.439
2. Projected unfunded actuarial accrued liability	3,010	
B. Payment on projected unfunded actuarial accrued liability, adjusted for timing	442	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
5. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$2,604	14.979
3. Total FY07 Appropriation, payable on July 1	2,553	14.679
Projected Payroll	17,398	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$2,248	\$2,338
2. Payment on projected unfunded actuarial accrued liability, adjusted for timing	173	198
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	_0	
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$2,421	\$2,536
7. Total Appropriation, payable on July 1	2,374	2,486

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Tyngsboro Water District		(7200)
The valuation was made with respect to the following data supplied to us:		, ,
1. Retired participants as of the valuation date (including 0 beneficiaries in pay status)		(
2. Participants active during the year ended December 31, 2005		-
3. Inactive participants entitled to a return of their employee contributions		(
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$25,394
2. Expected employee contributions		<u>-14,328</u>
3. Employer normal cost: (1) + (2)		\$11,066
4. Actuarial accrued liability		348,077
Retired participants and beneficiaries	\$0	,
Active participants	348,077	
Inactive participants	0	
5. Actuarial value of assets		190,164
6. Unfunded actuarial accrued liability		157,913
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payrol
Projected employer normal cost, adjusted for timing	\$11,511	6.97%
2. Projected unfunded actuarial accrued liability	164,298	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	7,808	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$19,319	11.70%
8. Total FY07 Appropriation, payable on July 1	18,940	11.47%
9. Projected Payroll	165,176	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$11,971	\$12,450
Payment on projected unfunded actuarial accrued liability, adjusted for timing	10,516	12,040
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	_0	
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$22,487	\$24,490
7. Total Appropriation, payable on July 1	22,044	24,009

SECTION 3: Supplemental Information for the Middlesex Retirement System

Summary of Actuarial Valuation Results for Groton Country Club		(7300)
The valuation was made with respect to the following data supplied to us:		, ,
1. Retired participants as of the valuation date (including 0 beneficiaries in pay status)		(
2. Participants active during the year ended December 31, 2005		(
3. Inactive participants entitled to a return of their employee contributions		(
4. Inactive participants with a vested right to a deferred or immediate benefit		(
The actuarial factors as of January 1, 2006 are as follows:		
1. Total normal cost		\$34,494
2. Expected employee contributions		-20,100
3. Employer normal cost: $(1) + (2)$		\$14,394
4. Actuarial accrued liability		27,94
Retired participants and beneficiaries	\$0	,
Active participants	27,941	
Inactive participants	0	
5. Actuarial value of assets		23,930
6. Unfunded actuarial accrued liability		4,01
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payro
Projected employer normal cost, adjusted for timing	\$14,973	6.959
2. Projected unfunded actuarial accrued liability	4,173	
3. Payment on projected unfunded actuarial accrued liability, adjusted for timing	-8,437	
4. Payment on 1992 ERI, adjusted for timing	0	
5. Payment on 2002 ERI, adjusted for timing	0	
6. Payment on 2003 ERI, adjusted for timing	_0	
7. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$6,536	3.03%
8. Total FY07 Appropriation, payable on July 1	6,408	2.989
9. Projected Payroll	215,375	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
Projected employer normal cost, adjusted for timing	\$15,572	\$16,195
Payment on projected unfunded actuarial accrued liability, adjusted for timing	835	957
3. Payment on 1992 ERI, adjusted for timing	0	(
4. Payment on 2002 ERI, adjusted for timing	0	(
5. Payment on 2003 ERI, adjusted for timing	_0	
5. Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$16,407	\$17,152
7. Total Appropriation, payable on July 1	16,085	16,815

SECTION 3: Supplemental Information for the Middlesex Retirement System

EXHIBIT G (CONTINUED) Summary of Actuarial Valuation Results for Middlesex County Retiremen	t Board	(1)
The valuation was made with respect to the following data supplied to us:	· Boara	(')
. Retired participants as of the valuation date (including 0 beneficiaries in pay status)		9
2. Participants active during the year ended December 31, 2005		23
E. Inactive participants entitled to a return of their employee contributions		0
. Inactive participants with a vested right to a deferred or immediate benefit		0
The actuarial factors as of January 1, 2006 are as follows:		
. Total normal cost		\$149,270
2. Expected employee contributions		-116,966
Employer normal cost: (1) + (2)		\$32,304
. Actuarial accrued liability		4,087,110
Retired participants and beneficiaries	\$1,960,181	1,007,110
Active participants	2,126,929	
Inactive participants	0	
. Actuarial value of assets		1,148,234
. Unfunded actuarial accrued liability		2,938,876
The actuarial factors projected to FY07 are as follows:	<u>Amount</u>	% of Payroll
. Projected employer normal cost, adjusted for timing	\$33,603	2.61%
. Projected unfunded actuarial accrued liability	3,057,702	
. Payment on projected unfunded actuarial accrued liability, adjusted for timing	69,461	
. Payment on 1992 ERI, adjusted for timing	0	
. Payment on 2002 ERI, adjusted for timing	8,500	
. Payment on 2003 ERI, adjusted for timing	<u>20,637</u>	
. Total FY07 Appropriation: $(1) + (3) + (4) + (5) + (6)$, adjusted for timing	\$132,201	10.28%
. Total FY07 Appropriation, payable on July 1	129,607	10.08%
. Projected Payroll	1,286,042	
The actuarial factors projected to FY08 and FY09 are as follows:	<u>FY08</u>	<u>FY09</u>
. Projected employer normal cost, adjusted for timing	\$34,947	\$36,345
. Payment on projected unfunded actuarial accrued liability, adjusted for timing	184,031	210,704
. Payment on 1992 ERI, adjusted for timing	0	0
. Payment on 2002 ERI, adjusted for timing	8,500	8,500
. Payment on 2003 ERI, adjusted for timing	<u>20,637</u>	<u>20,637</u>
Total Appropriation: $(1) + (2) + (3) + (4) + (5)$, adjusted for timing	\$248,115	\$276,186
. Total Appropriation, payable on July 1	243,218	270,768

SECTION 3: Supplemental Information for the Middlesex Retirement System

EXHIBIT H

Definitions of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Assumptions or actuarial assumptions:

The estimates on which the cost of the Plan is calculated including:

- (a) <u>Investment return</u> the rate of investment yield that the Plan will earn over the long-term future;
- (b) <u>Mortality rates</u> the death rates of employees and pensioners; life expectancy is based on these rates;
- (c) <u>Retirement rates</u> the rate or probability of retirement at a given age;
- (d) <u>Turnover rates</u> the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

Normal cost:

The amount of contributions required to fund the benefit allocated to the current year of service.

Actuarial accrued liability for actives:

The equivalent of the accumulated normal costs allocated to the years before the valuation date.

Actuarial accrued liability for pensioners:

The single sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

Unfunded actuarial accrued liability:

The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

SECTION 3: Supplemental Information for the Middlesex Retirement System

Amortization of the unfunded

actuarial accrued liability: Payments made over a period of years equal in value to the Plan's unfunded actuarial

accrued liability.

Investment return: The rate of earnings of the Plan from its investments, including interest, dividends and

capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one

year to the next.

ΕX	HIBIT I	_	
Su	mmary of Actuarial Valuation Results		
Th	e valuation was made with respect to the following data supplied to us:		
1.	Retired participants as of the valuation date (including 662 beneficiaries in pay status)		4,76
2.	Participants active during the year ended December 31, 2005 (including 9 participants with unknown age) with total accumulated contributions of \$235,793,151 and projected payroll of \$330,999,861		9,10
3.	Inactive participants with a right to a return of their employee contributions as of December 31, 2005		3,08
4.	Inactive participants with a vested right to a deferred or immediate benefit as of December 31, 2005		7
Th	e actuarial factors as of the valuation date are as follows:		
1.	Normal cost		\$42,967,12
2.	Expected employee contributions		<u>-29,074,47</u>
3.	Employer normal cost: $(1) + (2)$		\$13,892,65
4.	Actuarial accrued liability		1,364,582,96
	Retired participants and beneficiaries	\$701,130,517	
	Active participants	646,287,884	
	Inactive participants with vested rights	17,164,568	
5.	Actuarial value of assets (\$635,977,915 at market value)		653,156,86
6.	Unfunded actuarial accrued liability: (4) – (5)		711,426,10
Th	e recommended contribution for fiscal 2007 is as follows:		
1.	Projected employer normal cost, adjusted for timing		\$14,451,36
2.	Projected unfunded actuarial accrued liability		740,190,91
3.	Payment on projected unfunded actuarial accrued liability		50,444,24
4.	Preliminary recommended contribution: (1) + (3), adjusted for timing		64,895,61
5.	Budgeted appropriation, adjusted for timing		57,553,64
6.	Projected payroll		337,554,95

Note: Recommended contributions are assumed to be paid on July 1 and December 31.



EXHIBIT II

Supplementary Information Required by the GASB – Schedule of Employer Contributions

Plan Year Ended December 31	Annual Required Contributions	Actual Contributions	Percentage Contributed
2001	\$27,900,209	\$27,900,209	100.0%
2002	30,248,147	30,248,147	100.0%
2003	35,411,500	35,411,500	100.0%
2004	52,902,366	52,902,366	100.0%
2005	52,298,150	52,298,150	100.0%

EXHIBIT III

Supplementary Information Required by the GASB – Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll* [(b) - (a)] / (c)
01/01/1996	\$373,750,361	\$634,920,488	\$261,170,127	58.87%	\$218,345,024	119.61%
01/01/1998	476,708,969	763,093,878	286,384,909	62.47%	215,380,186	132.97%
01/01/2000	570,263,467	905,280,472	335,017,005	62.99%	253,228,818	132.30%
01/01/2002	599,699,143	1,020,828,178	421,129,035	58.75%	280,740,439	150.01%
01/01/2004	618,163,380	1,223,828,127	605,664,747	50.51%	306,025,949	197.91%
01/01/2006	653,156,866	1,364,582,969	711,426,103	47.86%	330,999,861	214.93%

^{*} Not less than zero

EXHIBIT IV
Supplementary Information Required by the GASB

Valuation date	January 1, 2006
Actuarial cost method	Entry Age Normal Cost Method
Amortization method	Level dollar for the 1992, 2002 and 2003 ERIs and 4.50% increasing for the remaining unfunded liability
Remaining amortization period	As of July 1, 2006, 4 years remaining for 1992 ERI liability; 13 year remaining for 2002 ERI liability, 14 years remaining for 2003 ERI liability and 22 years for remaining unfunded liability.
Asset valuation method	The difference between the expected return and the actual investment return on a market value basis is recognized over a five-year period as described by Revenue Procedure 2000-40.
Actuarial assumptions:	
Investment rate of return	8.25%
Projected salary increases	4.00% for the next 4 years; then 4.75% for Group 1 and 5.25% for Group 4
Cost of living adjustments	3.00% of first \$12,000 of retirement income
Plan membership:	
Retired participants and beneficiaries receiving benefits	4,763
Inactive participants entitled to a return of their employee contributions	3,080
Inactive participants with a vested right to a deferred or immediate benefit	78
Active participants	<u>9.106</u>
Total	17,027

EXHIBIT V

Actuarial Assumptions and Actuarial Cost Method

Mortality Rates:

Pre-Retirement: RP-2000 Employee Mortality Table

Healthy Retiree: RP-2000 Healthy Annuitant Mortality Table

Disabled Retiree: RP-2000 Healthy Annuitant Mortality Table set forward 2 years

Termination Rates before Retirement:		Groups 1 a	nd 2 - Rate (%)	
		Mor	Mortality	
	Age	Male	Female	
	20	0.03	0.02	0.02
	25	0.04	0.02	0.02
	30	0.04	0.03	0.03
	35	0.08	0.05	0.06
	40	0.11	0.07	0.10
	45	0.15	0.11	0.15
	50	0.21	0.17	0.19
	55	0.30	0.25	0.24
	60	0.49	0.39	0.28

Notes: 55% of the disability rates shown represent accidental disability. 20% of the accidental disabilities will die from the same cause as the disability.

55% of the death rates shown represent accidental death

Termination Rates before Retirement (continued):			Group 4 – Rate (%	%)
		Mor	tality	Disability
	Age	Male	Female	
	20	0.03	0.02	0.20
	25	0.04	0.02	0.20
	30	0.04	0.03	0.30
	35	0.08	0.05	0.30
	40	0.11	0.07	0.30
	45	0.15	0.11	1.00
	50	0.21	0.17	1.25
	55	0.30	0.25	1.20
	60	0.49	0.39	0.85

Notes: 90% of the disability rates shown represent accidental disability. 60% of the accidental disabilities will die from the same cause as the disability.

90% of the death rates shown represent accidental death.

Withdrawal Rates:		Rate per y	ear (%)	
	Years of Service	Groups 1 and 2	Years of Service	Group 4
	0	15.0	0	1.5
	1	12.0	1	1.5
	2	10.0	2	1.5
	3	9.0	3	1.5
	4	8.0	4	1.5
	5 – 9	7.6	5	1.5
	10 - 14	5.4	6	1.5
	15 – 19	3.3	7	1.5
	20 - 24	2.0	8	1.5
	25 - 29	1.0	9	1.5

SECTION 4: **Reporting Information for the Middlesex Retirement System**

	30+	0.0	10	1.5	
			11+	0.0	
Retirement Rates:	Rate per year (%)				
	Groups 1 and 2				
	Age	Male	Female	Group 4	
	45 – 49			1.0	
	50 - 54	1.0	1.5	2.0	
	55 – 59	2.0	5.5	15.0	
	60 - 61	12.0	5.0	20.0	
	62 - 64	30.0	15.0	25.0	
	65 - 68	40.0	15.0	100.0	
	69	50.0	20.0		
	70	100.0	100.0		
Unknown Data for Participants:	Same as those exhibit specified, participant			characteristics. If r	
Unknown Data for Participants: Age of Spouse:		s are assumed to be	male.		
Age of Spouse:	specified, participant	s are assumed to be	male.		
Age of Spouse: Percent Married:	specified, participant Female (or male) spo	s are assumed to be uses 3 years young	male. er (or older) than the		
	specified, participant Female (or male) spo 75% 8.25%, net of both op	s are assumed to be uses 3 years young	male. er (or older) than the		
Age of Spouse: Percent Married: Net Investment Return: Interest on Employee Contributions:	specified, participant Female (or male) spo 75% 8.25%, net of both op	s are assumed to be uses 3 years young	male. er (or older) than the		
Age of Spouse: Percent Married: Net Investment Return: Interest on Employee Contributions:	specified, participant. Female (or male) spo 75% 8.25%, net of both op 3.5%	s are assumed to be uses 3 years young perating and investr	er (or older) than the		
Age of Spouse: Percent Married: Net Investment Return: Interest on Employee Contributions:	specified, participants Female (or male) spo 75% 8.25%, net of both op 3.5% Year	s are assumed to be uses 3 years young perating and investring and Investriation 1	e male. er (or older) than the ment expenses Group 4		
Age of Spouse: Percent Married: Net Investment Return:	specified, participant Female (or male) spo 75% 8.25%, net of both op 3.5% Year 2006	s are assumed to be uses 3 years young perating and investring and 4.00%	e male. er (or older) than the ment expenses Group 4 4.00%		

4.75% *Includes allowance for inflation.* 5.25%

2010 and later

2005 Salary: 2005 salary equal to 2005 contributions reported in the data divided by the

contribution rate(s) reported in the data. For employees with less than 1 year of

service, salaries and contributions are annualized.

Total Service: Total creditable service reported in the data.

Actuarial Value of Assets: Market value of assets less unrecognized return in each of the last five years.

Unrecognized return is equal to the difference between the actual market value return and the expected market value return and is recognized over a five-year period, further

adjusted, if necessary, to be within 20% of the market value.

Actuarial Cost Method: Entry Age Normal Actuarial Cost Method. Entry Age is the age of the participant less

service. Normal Cost and Actuarial Accrued Liability are calculated on an individual

basis and are allocated by salary.

EXHIBIT VI

Summary of Plan Provisions

This exhibit summarizes the major provisions of Chapter 32 of the Laws of Massachusetts.

Plan Year:

January 1 – December 31

Retirement Benefits

Employees covered by the Contributory Retirement Law are classified into one of four groups depending on job classification. Group 1 comprises most positions in state and local government. It is the general category of public employees. Group 4 comprises mainly police and firefighters. Group 2 is for other specified hazardous occupations. (Officers and inspectors of the State Police are classified as Group 3.)

The annual amount of the retirement allowance is based on the member's final threeyear average salary multiplied by the number of years and full months of creditable service at the time of retirement and multiplied by a percentage according to the following table based on the age of the member at retirement:

Age Last Birthday at Date of Retirement

Percent	Group 1	Group 2	Group 4
2.5	65 or over	60 or over	55 or over
2.4	64	59	54
2.3	63	58	53
2.2	62	57	52
2.1	61	56	51
2.0	60	55	50
1.9	59		49
1.8	58		48
1.7	57		47
1.6	56		46
1.5	55		45

A member's final three-year average salary is defined as the greater of the highest consecutive three-year average annual rate of regular compensation and the average annual rate of regular compensation received during the last three years of creditable service prior to retirement. The \$30,000 cap on salary used in a benefit determination for any employee hired after January 1, 1979 has been removed.

The maximum annual amount of the retirement allowance is 80 percent of the member's final three-year average salary. Any member who is a veteran also receives an additional yearly retirement allowance of fifteen dollars per year of creditable service, not exceeding three hundred dollars. The veteran allowance is paid in addition to the 80 percent maximum.

Employee Contributions

Employees hired before January 1, 1975 contribute 5 percent of their salary; employees hired after December 31, 1974 and before January 1, 1984 contribute 7 percent; employees hired after January 1, 1984 contribute 8 percent; employees hired after July 1, 1996 contribute 9 percent. In addition, employees hired after December 31, 1978 contribute an additional 2 percent of salary in excess of \$30,000.

Employees hired after 1983 who leave with less than five years of credited service receive no interest on their contributions and employees who leave with five but less than ten years receive one-half the rate of regular interest otherwise payable.

Retirement Benefits (Superannuation)

Members of Group 1, 2 or 4 may retire upon the attainment of age 55. For retirement at ages below 55, twenty years of creditable service is required.

Members who terminate before age 55 with ten or more years of creditable service are eligible for a retirement allowance upon the attainment of age 55 (provided they have not withdrawn their accumulated deductions from the Annuity Savings Fund of the system).

Ordinary Disability Benefits

A member who is unable to perform his job due to a non-occupational disability will receive a retirement allowance if he has ten or more years of creditable service and has not reached age 55. The annual amount of such allowance shall be determined as if the member retired for superannuation at age 55, based on the amount of creditable service at the date of disability. For veterans, there is a minimum benefit of 50

percent of the member's most recent year's pay plus an annuity based on his own contributions.

Accidental Disability Benefit

For a job-connected disability the benefit is 72 percent of the member's most recent annual pay plus an annuity based on his own contributions, plus additional amounts for surviving children. Benefits are capped at 75 percent of annual rate of regular compensation for employees who become members after January 1, 1988.

Death Benefits

In general, the beneficiary of an employee who dies in active service will receive a refund of the employee's own contributions. Alternatively, if the employee were eligible to retire on the date of his death, a spouse's benefit will be paid the full amount the employee would have received under Option C (previously, two-thirds of the amount). The surviving spouse of a member who dies with two or more years of credited service has the option of a refund of the employee's contributions or a monthly benefit regardless of eligibility to retire, if they were married for at least one year. There is also a minimum widow's pension of \$500 per month, and there are additional amounts for surviving children.

If an employee's death is job-connected, the spouse will receive 72 percent of the member's most recent annual pay in addition to a refund of the member's accumulated deductions, plus additional amounts for surviving children. However, in accordance with Section 100 of Chapter 32, the surviving spouse of a police officer, firefighter or corrections officer is killed in the line of duty will be eligible to receive an annual benefit equal to the maximum salary held be the member at the time of death.

"Heart And Lung Law" And Cancer Presumption

Any case of hypertension or heart disease resulting in total or partial disability or death to a uniformed fireman or permanent member of a police department is presumed to have been suffered in the line of duty, unless the contrary is shown by competent evidence. Any case of disease of the lungs or respiratory tract resulting in total disability or death to a uniformed fireman is presumed to have been suffered in the line of duty, unless the contrary is shown by competent evidence. There is an

	additional presumption for uniformed firemen that certain types of cancer are job- related if onset occurs while actively employed or within five years of retirement.
Options	
	Members may elect to receive a full retirement allowance payable for life under Option A. Under Option B a member may elect to receive a lower monthly allowance in exchange for a guarantee that at his death any of his contributions not expended for annuity payments will be refunded to his beneficiary. Option C allows the member to take a lesser retirement allowance in exchange for providing his survivor with two-thirds of the lesser amount. Option C pensioners will have their benefits converted from a reduced to a full retirement if the beneficiary predeceases the retiree.
Post-Retirement Benefits	
	The Board has adopted the provisions of Section 51 Chapter 127 of the Acts of 1999, which provide that the Retirement Board may approve an annual COLA in excess of the Consumer Price Index but not to exceed a 3% COLA on the first \$12,000 of a retirement allowance. Cost-of-living increases granted prior to July 1, 1998 are reimbursed by the Commonwealth and not reflected in this report.